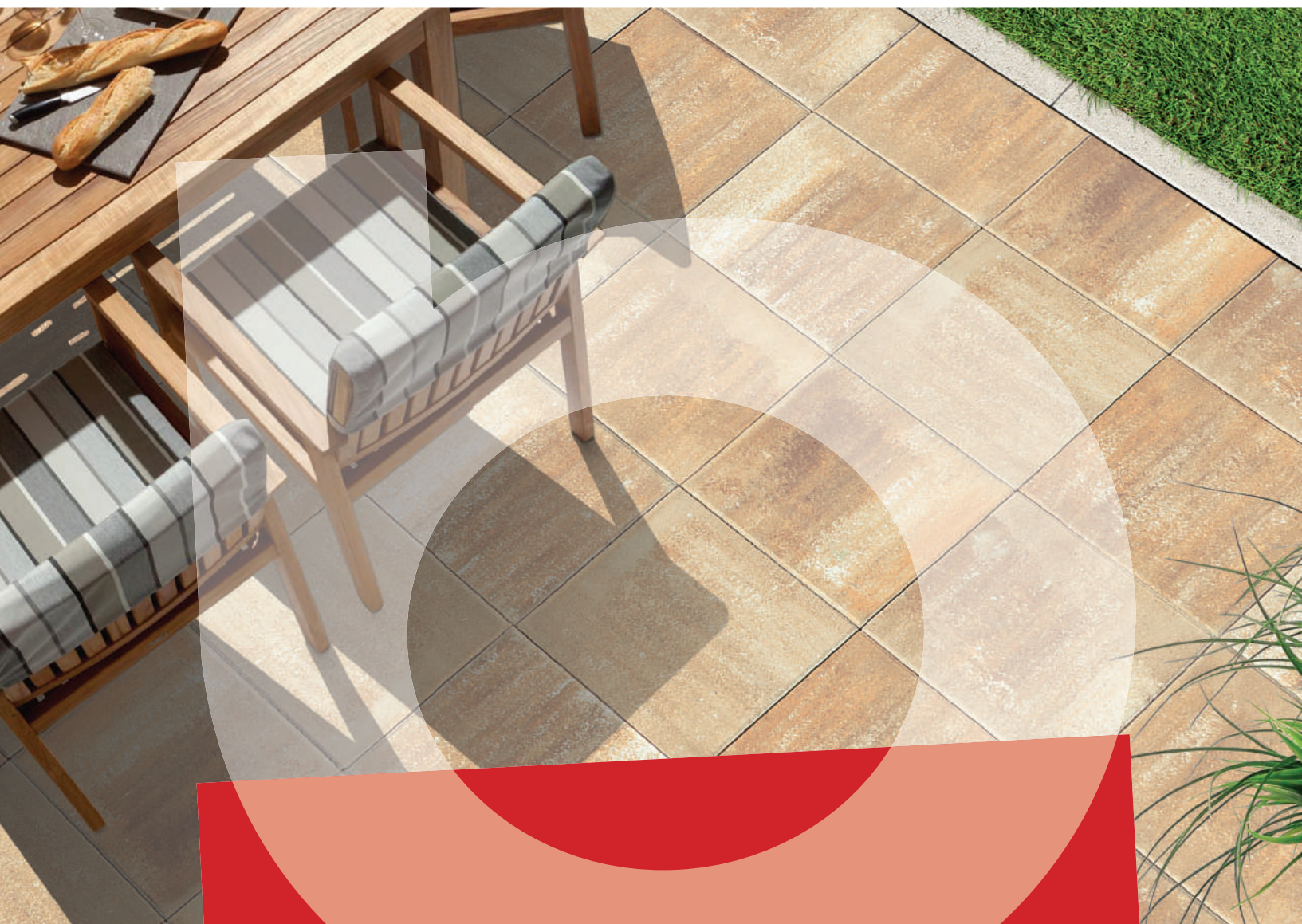




PRODUCT CATALOGUE

CONCRETE TILES ■ ROAD PROGRAM ■ SEWAGE AND DRAINAGE SYSTEMS ■
SPECIAL LICENSED CONCRETE ELEMENTS

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Dear present and future customers

By taking a look at this catalogue you are entering the world of concrete and concrete products of different purposes and profiles. We wish to, in a creative and interesting way, present our company, our production program and high quality of our services that may fulfill your needs and requirements, which are very important to us, because that is the way for our cooperation to last and for us to be of the most benefit to you.

Binis is a family company with almost 30 years of tradition. From the very beginning until now, the priority goal of our company was supreme quality products to customer's satisfaction.



That goal creates the need to cooperate exclusively with suppliers who have long tradition in business and are able to offer, whenever needed, raw materials of the best quality that we use in our production.

Part of our suppliers list:

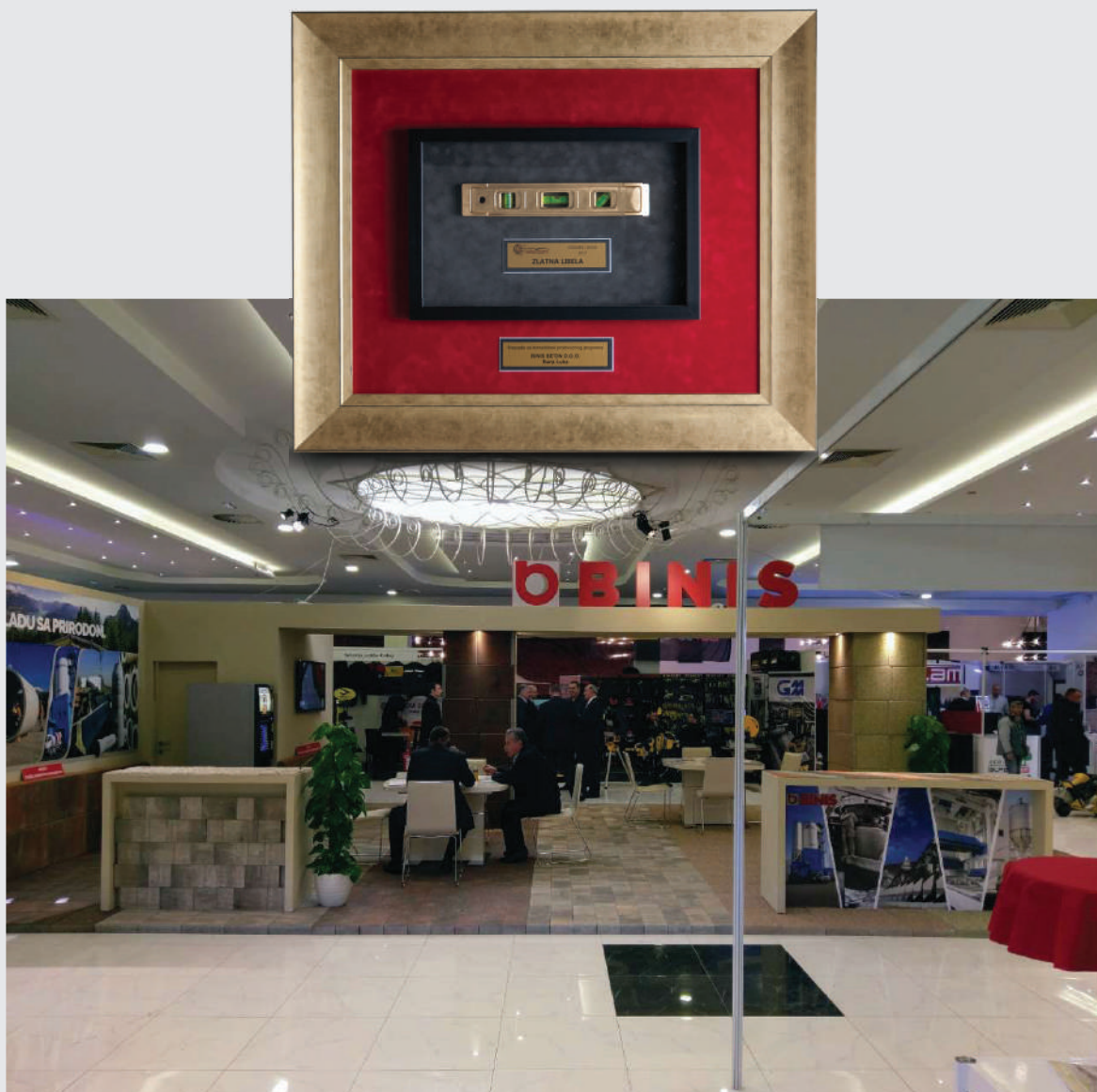


Company goal

The company continuously puts effort into mitigating pollution. We possess our own system for concrete recycling that enables us to respect ecological principles in full. Significant efforts are also put into noise reduction – all our machines are located inside closed premises that have sound insulation in place.

The goal of the company is to offer its clients exclusive and quality products. The high quality standard is the result of continual investments in research. That is the reason why Binisis renowned and recognized partner today, because of the quality, professionalism and diverse products.

Since many years ago we have been participating in Banja Luka Civil Engineering Fair GRAMES and we keep winning awards for quality of products, completeness of production program, new products in civil engineering, etc. We also participate in many other fairs.





Quarry

Quarry "Dobrnja" is integral part of company Binisd.o.o. It is located on mountain Manjača, not far from BanjaLukam and only 28 km away from our company. The quarry is located on the plot of area of 160 ha. The first primary crushing operations in the quarry started in September 2011.



The production in the quarry is carried out with the modern plant from Sweden manufacturer Sandvik. Its capacity is 200 m³/h, with 4 main fractions for concrete and 6 inter-fractions for construction of subsoil and asphalt. The plant is completely computerized.

Taking into account the total area of the quarry, exploitation and total reserves, as well as capacities of available equipment and machines, our quarry is able to produce around 300 tons of fractions per hour, with annual production of 400,000 cubic meters of stone fractions that are suitable for production of concrete, unbound road layers, road sub bases, road surface dressing with asphalt-concrete, etc.



Rock mass from layers of technical limestone “Dobrnja” near Banja Luka may be used for production of aggregate that is used for production of concrete, all types of modern road bases, pavement dressings from asphalt-concrete on roads with light traffic load, upper bearing layers of roads made from bituminous material on roads with light to moderate traffic load, lower bearing layers of road made from bituminous material for roads of any traffic load.

The quarry has favorable road communications, mainly because of favorable transit conditions.

Lot of attention and significance is given to measures of environmental protection in the quarry “Dobrnja”. The operation of quarry is in compliance with laws and regulations in the field of environmental protection.



Dry procedure of limestone preparation for separated stone aggregate

1. Three-phase crushing
2. Screening of tailings before primary crushing procedure
3. Multi-stage screening in order to obtain the following fractions:
 - Stone aggregate 0-2
 - Stone aggregate 0-4
 - Stone aggregate 2-4
 - Stone aggregate 4-8
 - Stone aggregate 8-11
 - Stone aggregate 8-16
 - Stone aggregate 11-16
 - Stone aggregate 16-32
 - Stone aggregate 22-32
 - Crushed aggregate for subsoil 0-32
 - Crushed aggregate for subsoil 0-63
 - Crushed aggregate for subsoil 32-63

Estimate of solid rock mass stock:

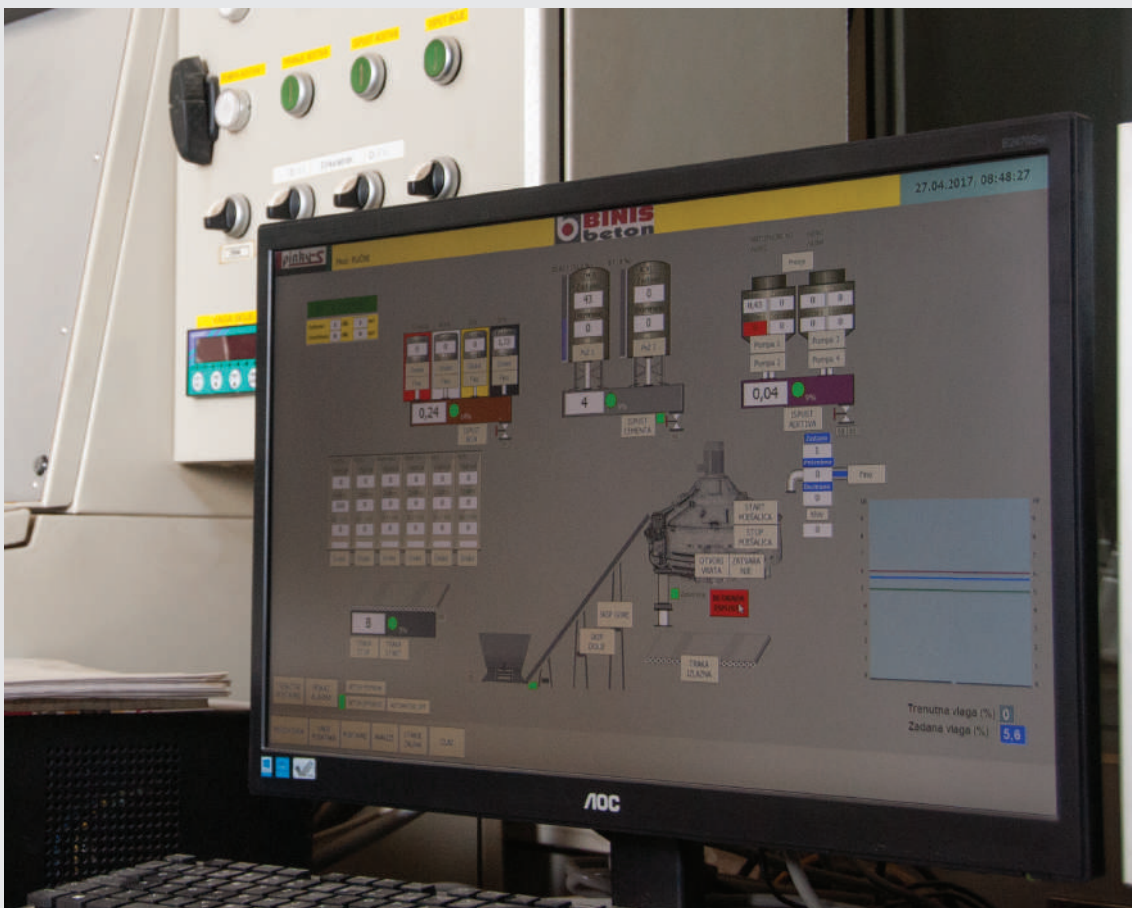
- Tested and verified for exploitation **4,300,000 m³**
- Estimated on site **28.000.000 m³**

Aggregates





The company successfully implements the quality system ISO-9001 and environmental management system ISO-14001.



Production control



Production control is carried out in our own laboratory that is equipped for all types of current controls. Current control includes the control of input raw materials (aggregate, cement, additives and water) and control of fresh concrete, up to final products – according to standards BAS EN 1338, BAS EN 1339, BAS EN 1340, BAS EN 206, BAS EN 1916, BAS EN 1917. Laboratory is directly controlled by certified institutions.

All products have valid certificates of conformity and reports issued by accredited institutions.



Production capacity

We own modern equipment for production manufactured by Hess, Colle, Liebherr and Imer group.

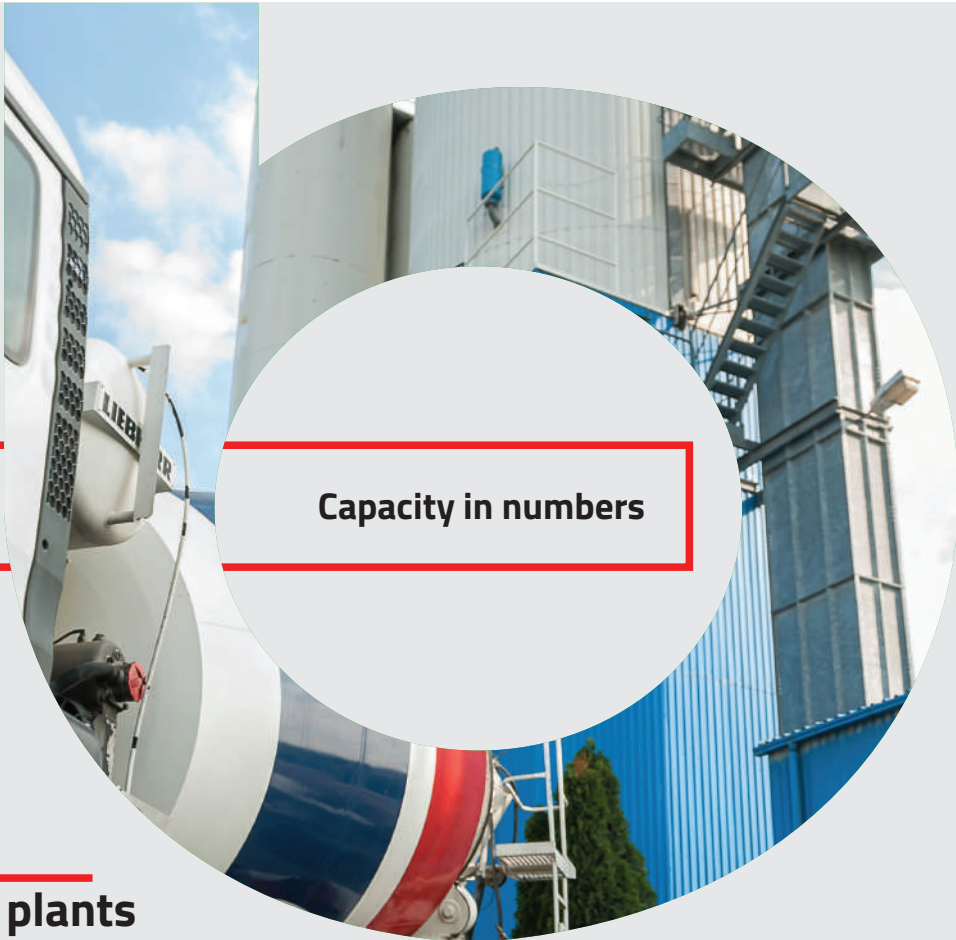
Hess is one of technology leaders in concrete production industry. It provides symbiosis of flexibility, product quality and speed, combining all necessary ingredients for quality production. The production capacity is 250 m²/h of slabs and 400 m/h of curbs.

Colle is Italian company that was founded in 1950s, and due to its long tradition it represents the leader in production of equipment for production of prefabricated concrete.

Liebherr is famous for its high quality equipment in the area of concrete technology. The company is able to provide the right solution for cost-effective production of concrete and optimal transport of high quality concrete for all purposes. Binis owns two concrete plants manufactured by Liebherr of total capacity of 200m³/h.







Capacity in numbers

3

concrete plants

of total capacity of 200 m³/h

3

concrete pumps

with 42m, 32m and 15m arms

7

concrete mixer trucks

for transportation of concrete

5

heavy trucks

for transport of aggregate from own production capacities of "Dobrnja" quarry

1

automated plant

for production of concrete pipes and manholes

1

automated plant

for production of vibro-pressed concrete products

3

tank trucks

for transport of bulk cement







Concrete tiles program



Elegant

Elegance



Our product assortment includes Elegant tiles that are made by special processing of the final layer, which contains smaller or larger fractions of stone in different colors besides quartz.

Wide selection of colors will satisfy even the most sophisticated tastes and fulfill the most complex visions of your yard, terrace or any other outdoor area. Also, they are suitable for tiling of different public areas, school yards, squares, parks, areas around business and residential buildings, religious objects, etc.

They fully satisfy requirements of high quality concrete, resistance to compression, resistance to tear tension, resistance to frost and defrosting salt, resistance to water absorption, wearing resistance, etc.

Klasik

Classic

"Klasik" tiles are also present in our production program in different sizes and colors and they are used for different tiling projects of our clients. They also possess all characteristics of high quality and an appearance of modern and sophisticated design.



Kolor miks

Color mix



The area covered in "Kolormiks" tiles looks interesting, warm and has an artistic touch. Wide variety of colors and combinations ensures perfect match for any type of surroundings.

They are suitable for all types of areas, both public and privately owned ones. It is not recommended to combine them with other types of tiles because they are very distinctive by themselves due to their color palette.

Antik

Antic



"Antik" tiles are produced in three different sizes, and all of them are used when installing this type of tiles. The upper surface has relief structure, and installing in three different sizes achieves harmonious, warm and inviting space.

They are suitable for tiling of different areas – residential areas, weekend houses, open-space areas (gazeboes, outdoor grill areas, pools), business premises, etc. They are most often used in color mix variants because it provides maximum of esthetic appearance.

Rustik

Rustic

"Rustik" tiles perfectly fit in natural surroundings with prevailing materials being wood and stone. They are produced by technology of breaking the edges of previously made tile models, which gives them rustic appearance. They have the charm of past times, so they are ideal choice for tiling of areas around ethno restaurants, weekend houses, old streets, but also around buildings of modern design.



Behaton

Behaton



"Behaton" tiles are recommended for areas exposed to high dynamic loads – industrial facilities, parking lots, trade centers, etc. The tiles interlock quite well, so they are ideal for areas with heavy vehicles traffic.

Romb

Rhombus

"Romb" tiles offer many possibilities in installation and combining due to their shape and available colors. It is very easy to achieve 3D effect with tiles in three colors.



Reket

Racquet



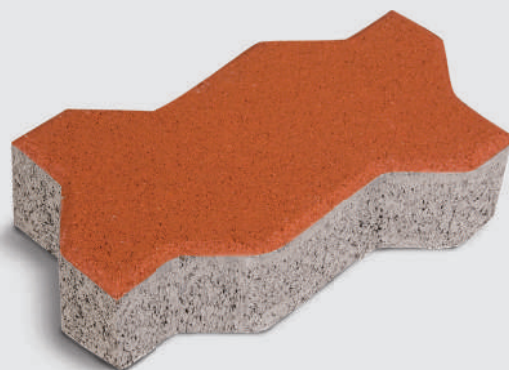
"Reket" tiles are very decorative due to their irregular shape. The edges are made with precision so they fit ideally with each other.

They are suitable for all types of surfaces, from private yards to public squares and pedestrian paths.

Uni S

Uni S

Due to its stylized letter S, "Uni S" tiles interlock perfectly and it is recommended for areas with pedestrian and car load. It is also suitable for private yards, being very decorative when installed in only one color.



Heksagon

Hexagon

Hexagonal tiles "Heksagon" are recommended for lining of river banks, canal slopes and roads with heavy traffic loads.



Meba

Meba



Grass tile "Meba" belongs to ecological program, for our goal is to follow current trends in the field of ecology and preservation of green areas by producing and using this type of tiles. Precipitation water from surfaces covered with this type of tiles goes directly to the ground. Openings in tiles and between them enable growth of the grass, so tiled surface is at the same time grassy, nice and tidy.

They are suitable for all types of parking lots, lining of slopes and embankments because they prevent erosion on slopes. It is possible to combine them with tiles from "Klasik" line, which only emphasize their decorative purpose.

Eko

Eco

"Eko" tiles are meant for tiling of parking lots and other areas where water retention is to be prevented. Those tiles are installed with a slight distance in between them, in order to enhance drainage. Grout of 3 cm is filled with dirt (grass) or other porous material that drains precipitate and solves the drainage problem without additional investments. These tiles are used on garage ways, parking lots and other public or private areas.



Installation of concrete tiles



Base layer

Crushed aggregate of size 2-4 or 4-8 mm is evenly spread on the even, previously prepared surface (layer of aggregate 20-30 cm thick, well stabilized, or the existing concrete surface) in the layer of 3-5 cm. Crushed aggregate is evened by aluminum profiles and the prepared surface is not compacted.

Tiles laying

Laying of tiles starts from the end with the thickest base layer. Tiles should not be installed too close to each other, for it would be impossible to even the differences in height for their edges might break. Care should be taken of the drainage during the installation of tiles. Also, it is advisable to use tiles from different pallets (at least three) in order to avoid differences in color hues. It is especially applicable to "kolormiks" tiles because of their different tones of color.

Grouting

Spaces between tiles are filled with grouting material (dry quartz sand fraction 0-2 mm). The dry material should fill the spaces between tiles completely. The surface is cleaned from excessive sand with broom, then compacted using vibrating plate with rubber lining. Vibrating rolls are not to be used for they might damage the final layer of concrete tiles. After compacting, grouting sand is applied once more and the surface is cleaned with broom again. Grouting should be repeated in 20-30 days if possible.



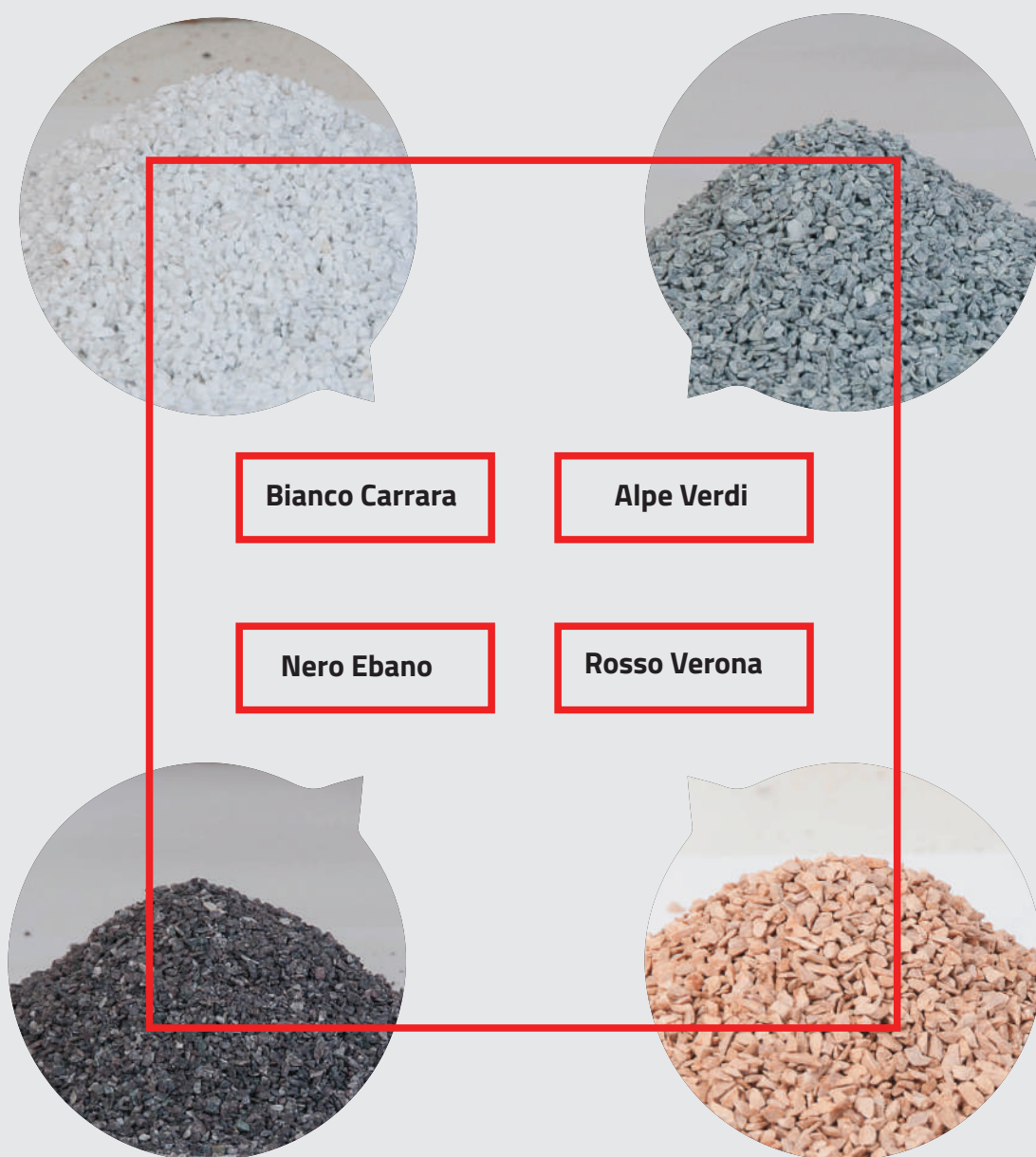
Elegant tiles

*with special
finish*

"Elegant" tiles are made in two layers, main concrete layer with incorporated aggregate and surface layer with quartz sand and added smaller or larger fractions of different colors, giving them, besides modern design and esthetic element, additional strength. The results are shiny, natural grains on the upper surface.

The main layer is produced from high quality crushed aggregate of limestone from our own quarry, high quality cement supplied by our old partner Cemex (one of the biggest producers of cement in the world), water and additives of the last generation, with the aim of achieving additional physical and chemical characteristics of concrete.

Final fine layer is produced from aggregate, quartz, cement, water and additives that create wearing resistance and resistance to elements. Quality natural stones of different colors are added into that mix, giving the desired esthetic effect. That layer is additionally processed in the end, in order to open the structure of the tile and emphasize elegance.



Some of colored stone aggregates for the final layer

Specifications of “Elegant” tiles

BAS EN 1338

BAS EN 1339

“Elegant” tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt.

Resistant to water absorption.

Resistance to wearing.



Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
60x40	8	4.17	180	9.6	1728
40x40	8	6.25	180	9.60	1728
30x30	8	11.11	180	10.80	1944
20x20	8	25	180	12.00	2160
10x20	8	50	180	10.80	1944
10x10	8	100	180	9.90	1782



dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
30x30	6	11.11	135	12.96	1750
30x20	6	16.67	135	14.40	1944
20x20	6	25	135	14.40	1944
10x20	6	50	135	12.96	1750
10x10	6	100	135	11.88	1640



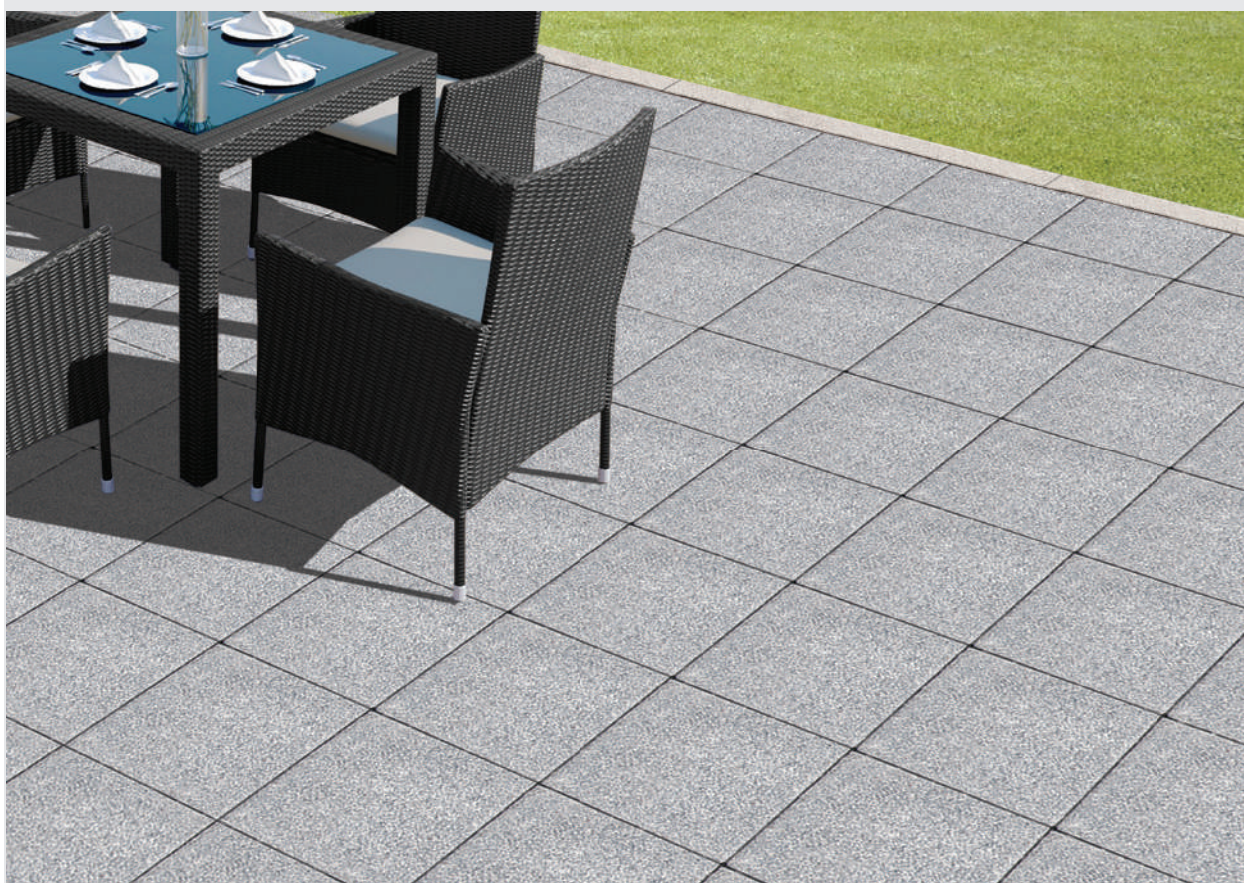
dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
40x40	4	6.25	93.75	17.28	1620



Pahuljica Snowflake



Trag dima Smoky trail



Tamna kocka

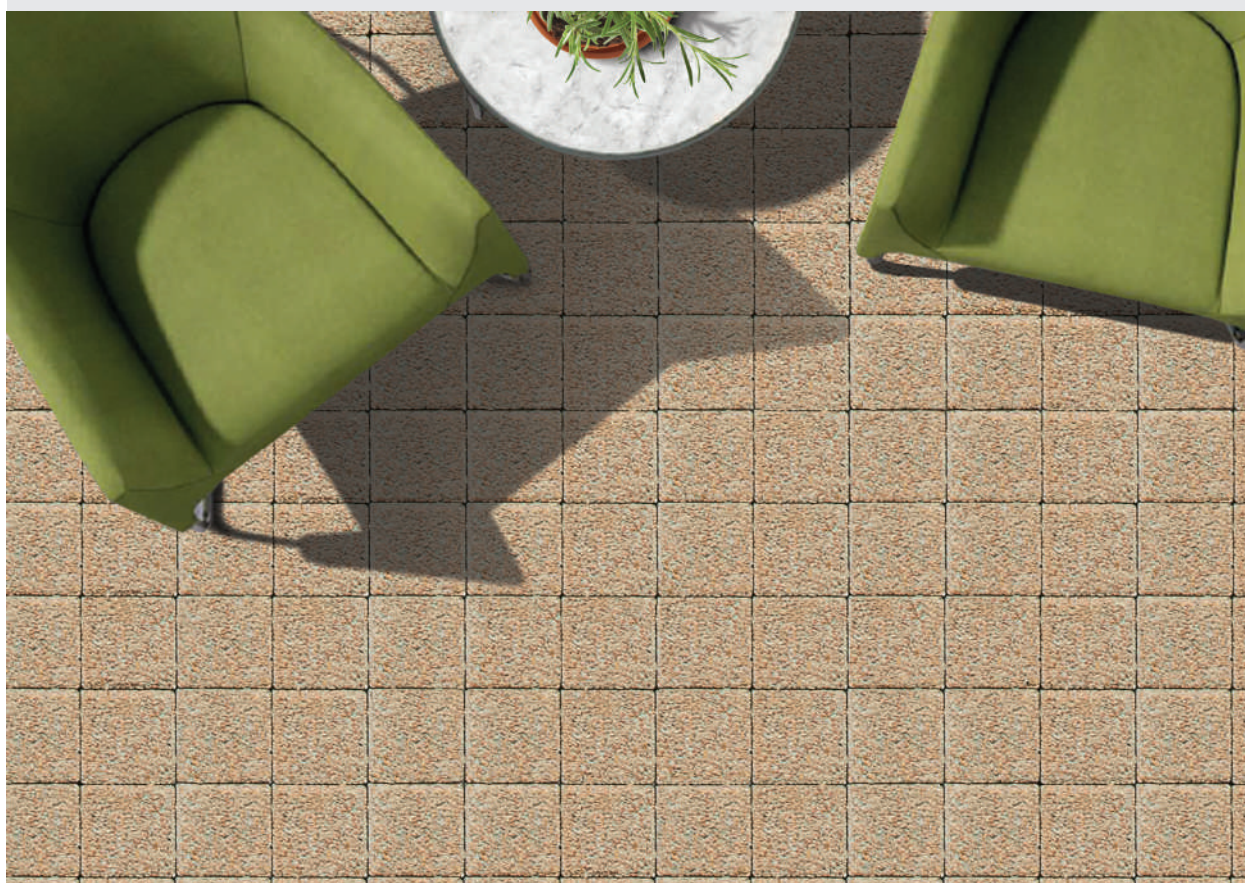
Dark cube



Zalazak sunca Sunset



Pšenično polje Wheatfield



Plavičasti dim

Bluish smoke

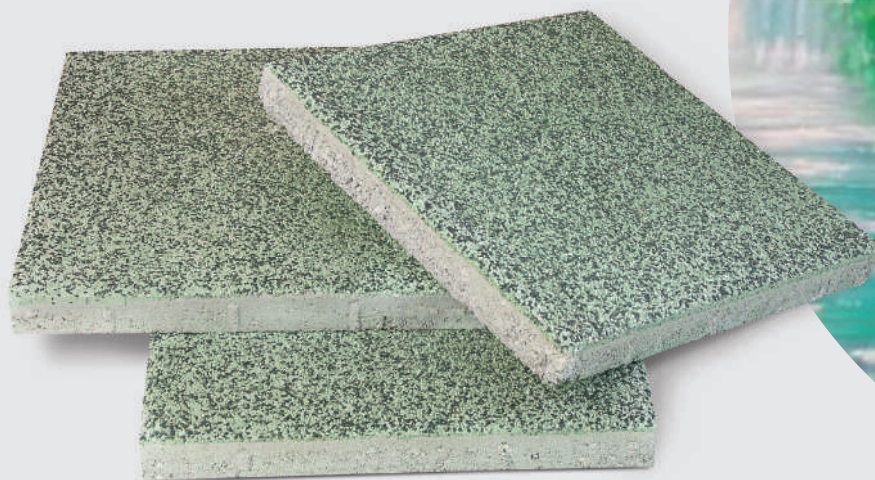


Jin i Jang

Yin and Yang



Sjaj smaragda Emerald glow



Stara cigla

Old brick



Sunčani zaliv

Sunny bay



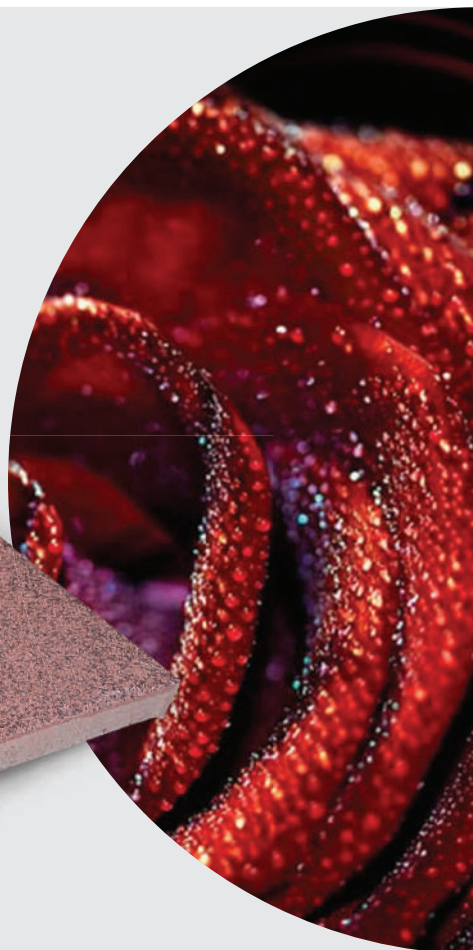
Vulkanska stijena

Volcanic rock



Rubinove suze

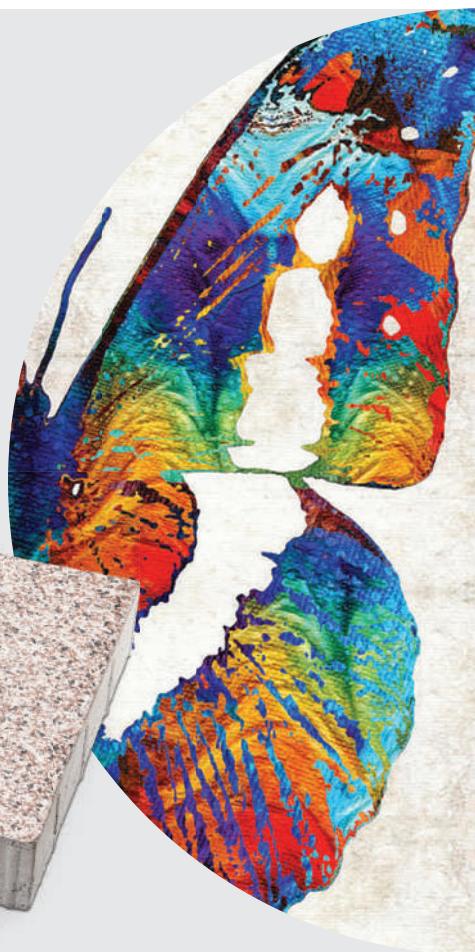
Ruby tears



Vanila Vanilla



Leptir Butterfly



Divlja jagoda

Wild strawberry



Crni dijamant

Black diamond





Sunny Bay



Wild Strawberry



Combination Elegant Sunny Bay and Klasik White



Combination Elegant Jin and Jang and Klasik Red



Klasik tiles

"Klasik" tiles are part of our production program, made in different colors and sizes and for different purposes for our customers. They are also of high quality and look modern and sophisticated.

They are available in seven different sizes and thickness of 8, 6 and 4 cm, which allows for many different ways of installation and many combinations of sizes and colors.

By choosing "KLASIK" line of tiles you ensure that your yard will always look its best.

Specifications of "Klasik" tiles

BAS EN 1338

BAS EN 1339

"Klasik" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt.

Resistant to water absorption.

Resistance to wearing.



Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
60x40	8	4.17	180	9.6	1728
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10x10	6	100	135	11.88	1640

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
40x40	4	6.25	93.75	17.28	1620

Colors



White



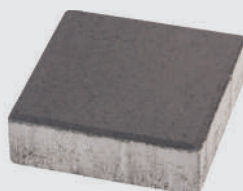
Green



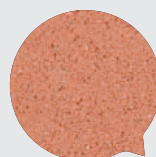
Grey



Red



Black



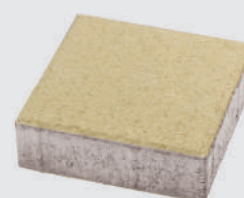
**Extra
Peach**



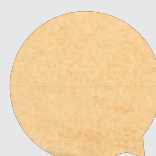
**Extra
Black**



Ocher



Brown

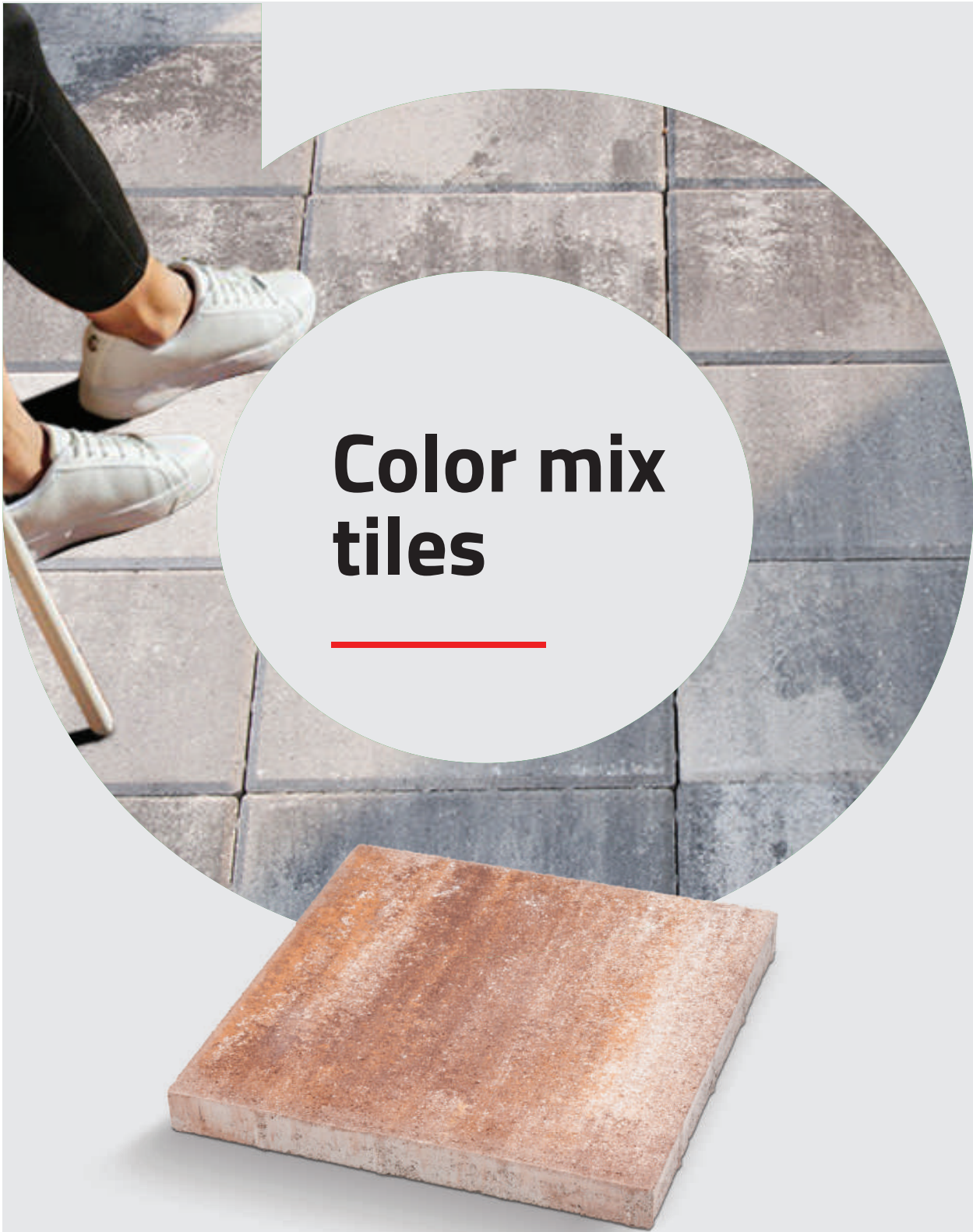


**Extra
Ocher**









Color mix tiles

The area covered in “Color mix” looks very interesting, warm and has an artistic touch to it.

Large choice of colors and combinations ensure perfect fitting into any type of surrounding. They are suitable for all types of areas, both private and public ones.

It is not recommended to combine them with other types of tiles, for they are quite remarkable on their own, due to their magnificent colors.

Specifications of "Color mix" tiles

BAS EN 1338
BAS EN 1339

"Color mix" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt.

Resistant to water absorption.

Resistance to wearing.



Please see symbol legend according to contents.

dimensions (cm)	thickness(cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
60x40	8	4.17	180	9.6	1728
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30x30	8	11.11	180	10.80	1944
20x20	8	25	180	12.00	2160
10x20	8	50	180	10.80	1944
10x10	8	100	180	9.90	1782



dimensions (cm)	thickness(cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
30x30	6	11.11	135	12.96	1750
30x20	6	16.67	135	14.40	1944
20x20	6	25	135	14.40	1944
10x20	6	50	135	12.96	1750
10x10	6	100	135	11.88	1640



dimensions (cm)	thickness(cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
40x40	4	6.25	93.75	17.28	1620



Colors



Kakao
Cocoa



Zelena rijeka
Green river



Vanila san
Vanilla dream



Izlazak sunca
Sunrise



Kraljevska crvena
Royal red



Trag bakra
Copper trace



Jesenja rapsodija
Autumn Rhapsody



Zimska magla
Winter fog



Plodna zemlja
Fertile Land

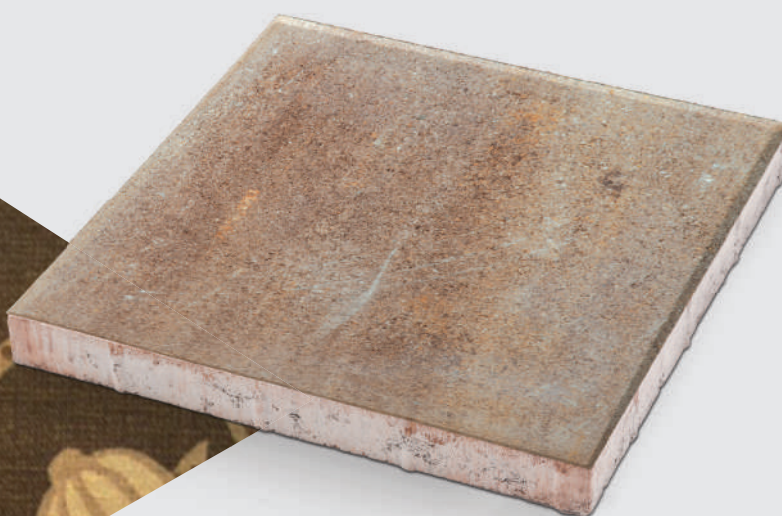


Slonove kosti
Elephant bones

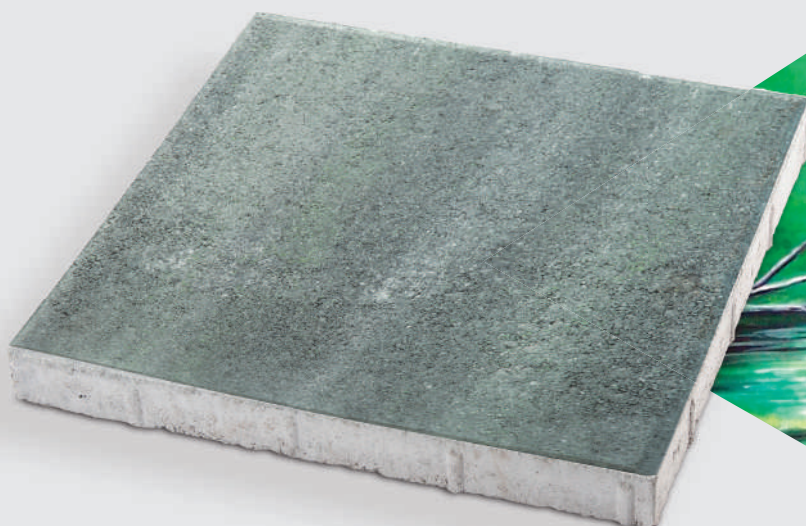


Color mix Cocoa

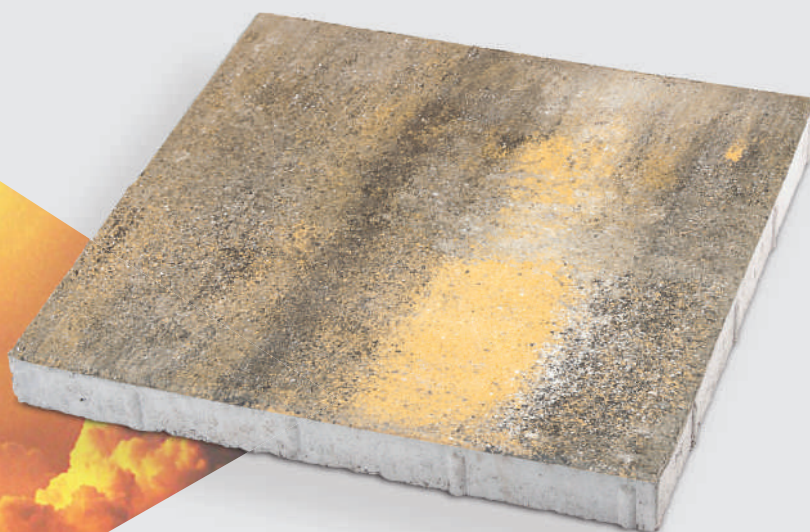
Kakao Cocoa



Zelena rijeka Green river



Vanila san Vanila dream



Kraljevska crvena Royal red



Tragovi bakra

Copper trace



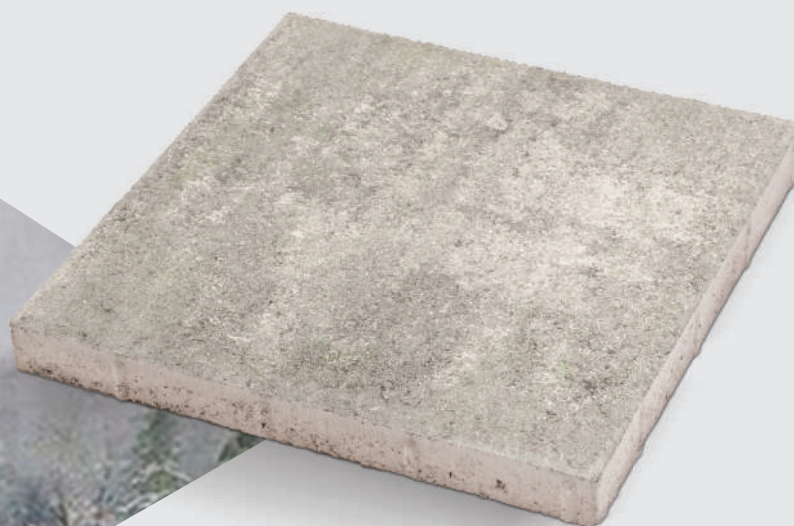
Jesenja rapsodija

Autumn rhapsody



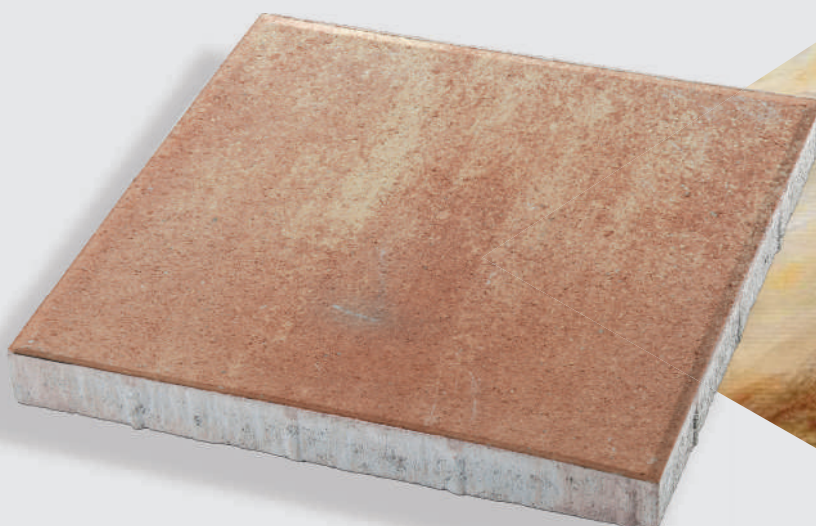
Zimska magla

Winter fog

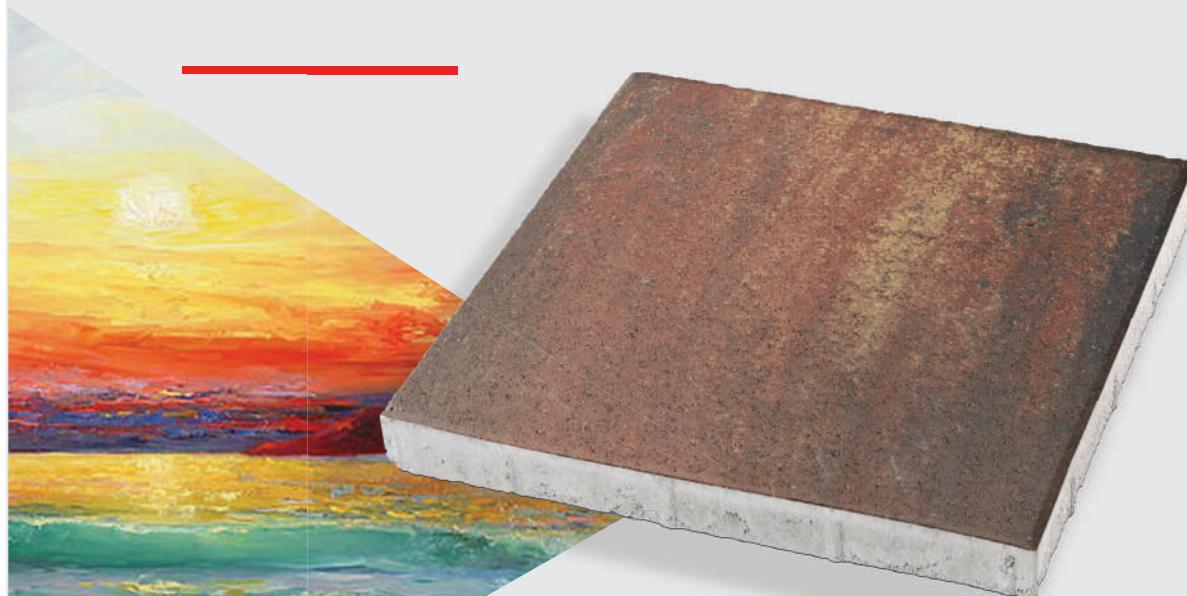


Plodna zemlja

Fertile land



Izlazak sunca Sunrise



Slonove kosti Elephant bones







The advertisement features a large circular inset showing a paved area with Antik tiles in a herringbone pattern, with a green lawn and fence in the background. Below the circle, three individual tiles are shown in a 3D perspective. The title 'Antik tiles' is centered in a white circle over the tile pattern, with a red underline.

Antik tiles

“Antik” tiles are produced in three sizes, and all those sizes are used when installing them. Upper tile surface has the relief structure that, in combination with three different sizes, makes the space look harmonious, warm and inviting.

These tiles are suitable for all types of installations – in residential buildings, weekend houses, open spaces (gazebos, grill areas, pools), business premises, etc. They are most often used in “Color mix” variants, for that creates the maximum esthetic effect.

Specifications of "Antik" tiles

BAS EN 1338

BAS EN 1339

"Antik" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt.

Resistant to water absorption.

Resistance to wearing.



Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
12.3/16.5/24.7x16.5	6	sorted	135	12.72	1717



Colors



Kakao
Cocoa



Zelena rijeka
Green river



Vanila san
Vanilla dream



Izlazak sunca
Sunrise



Kraljevska crvena
Royal red



Trag bakra
Copper trace



Jesenja rapsodija
Autumn Rhapsody



Zimska magla
Winter fog



Plodna zemlja
Fertile Land



Slonove kosti
Elephant bones





Antik Cocoa



Antik Sunrise





Rustik

Rustic



“Rustik” tiles perfectly fit into natural surroundings, where stone and wood prevail. They are produced by technology of breaking the edges of previously made tile models, which gives them rustic appearance. They have the charm of past times, so they are ideal choice for tiling of areas around ethno restaurants, weekend houses, old streets, but also around buildings of modern design.



Specifications of "Rustik" tiles

BAS EN 1338

BAS EN 1339

"Rustik" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt.

Resistant to water absorption.

Resistance to wearing.



Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
30x30	6	11.11	135	12.96	1750
30x20	6	16.67	135	14.40	1944
20x20	6	25	135	14.40	1944
20x10	6	50	135	12.96	1750
10x10	6	100	135	11.88	1640



Colors





Behaton

Behaton



"Behaton" tiles are recommended for areas exposed to high loads – industrial facilities, parkinglots, trade centers, etc. The tiles interlock quite well, so they are ideal for areas with heavy vehicles traffic.



Specifications of "Behaton" tiles

BAS EN 1338

BAS EN 1339

"Behaton" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt.

Resistant to water absorption.

Resistance to wearing.

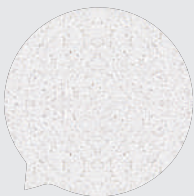


Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
20x16	8	36	180	10	1800



Colors



White



Grey



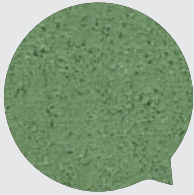
Black



Extra Black



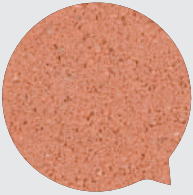
Brown



Green



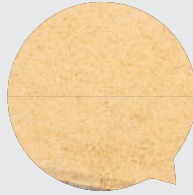
Red



Extra Peach



Ocher



Extra Ocher

Romb

Rhombus



"Romb" tiles offer many possibilities in installation and combining due to their shape and available colors. It is very easy to achieve 3D effect with tiles in three colors.



Specifications of "Romb" tiles

BAS EN 1338

BAS EN 1339

"Romb" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt

Resistant to water absorption.

Resistance to wearing.

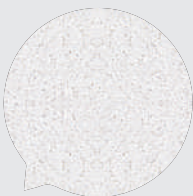


Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
34,10x19,70	6	28.78	135	12.26	1655



Colors



White



Grey



Black



Extra Black



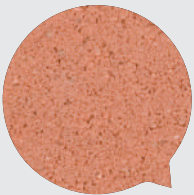
Brown



Green



Red



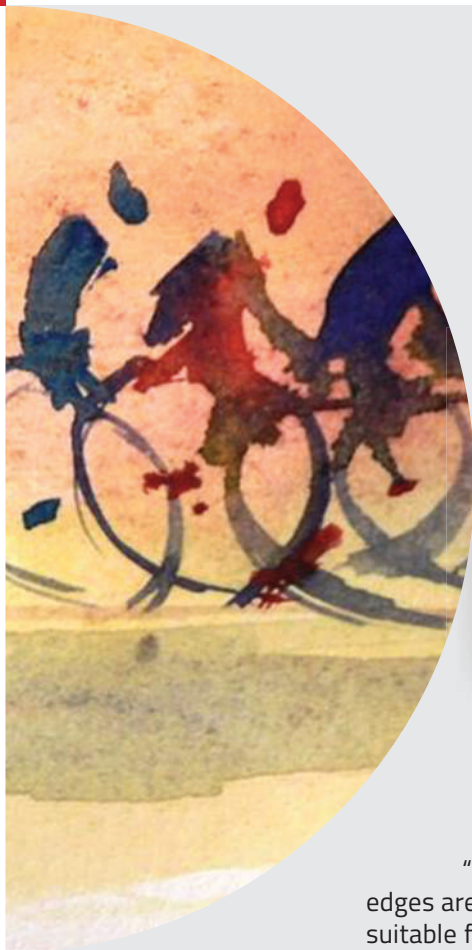
Extra Peach



Ocher



Extra Ocher



Reket

Racquet



"Reket" tiles are very decorative due to their irregular shape. The edges are made with precision so they fit ideally with each other. They are suitable for all types of surfaces, from private yards to public squares and pedestrian and cycling paths.

The covered area looks nice even when only one color of tiles is used, due to its decorative quality.



Specifications of "Reket" tiles

BAS EN 1338

BAS EN 1339

"Reket" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt

Resistant to water absorption.

Resistance to wearing.

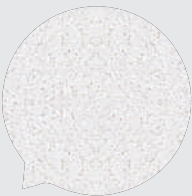


Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
22.80x13.70	6	38.57	135	12.44	1685



Colors



White



Grey



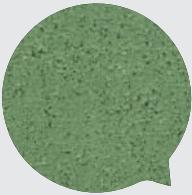
Black



Extra Black



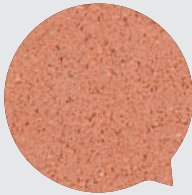
Brown



Green



Red



Extra Peach



Ocher



Extra Ocher



Uni S

Uni S



Due to its stylized letter S, “Uni S” tiles interlock perfectly and it is recommended for areas with frequent pedestrian and car traffic. It is also suitable for private yards, being very decorative when installed in only one color.



Specifications of "Uni S" tiles

BAS EN 1338

BAS EN 1339

"Uni S" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt

Resistant to water absorption.

Resistance to wearing.

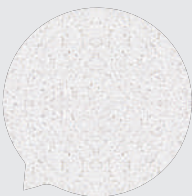


Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
24.50x13.25	6	39.53	135	11.88	1605



Colors



White



Grey



Black



Extra Black



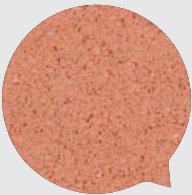
Brown



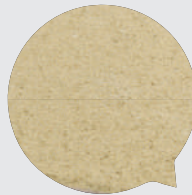
Green



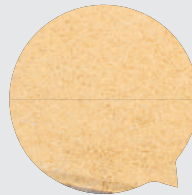
Red



Extra Peach



Ocher



Extra Ocher



Heksagon

Hexagon



Hexagonal tiles "Heksagon" are recommended for lining of river banks, canal slopes and roads with heavy traffic loads. They may be installed in one or two layers. With two-layer installation, final processing is done with quartz sand, providing high quality structure and excellent wear resistance.



Specifications of "Heksagon" tiles

BAS EN 1338

BAS EN 1339

"Heksagon" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt

Resistant to water absorption.

Resistance to wearing.

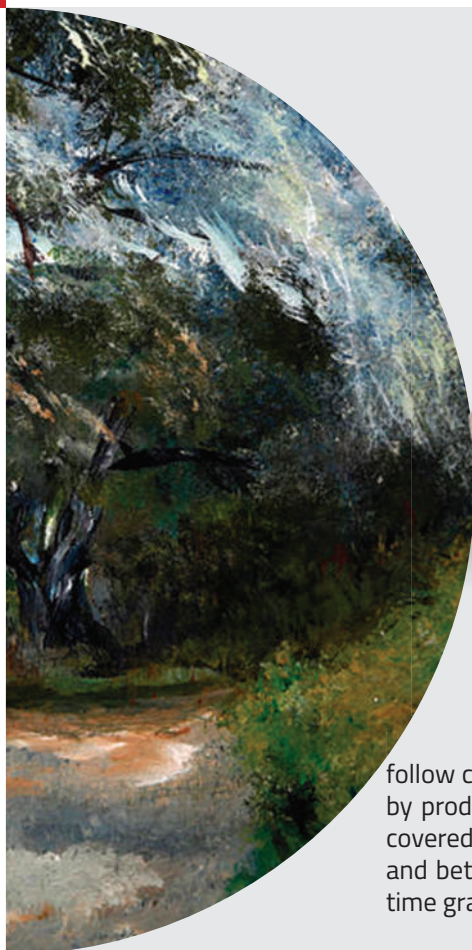


Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/piece	kg/m ²	m ² /pal.	pallet mass	
40x36.64	15	9.62	37.40	359.79	6	2158.74	

Colors





Meba

Meba



Grass tiles "Meba" belong to ecological program, for our goal is to follow current trends in the field of ecology and preservation of green areas by producing and using this type of tiles. Precipitation water from surfaces covered with this type of tiles goes directly into the ground. Openings in tiles and between them enable growth of grass, so tiled surface is at the same time grassy, nice and tidy.

They are suitable for all types of parking lots and lining of slopes and embankments because they prevent erosion on slopes. It is possible to combine them with tiles from "Klasik" line, which only emphasize their decorative purpose.



Specifications of "Meba" tiles

BAS EN 1338

BAS EN 1339

"Meba" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt

Resistant to water absorption.

Resistance to wearing.

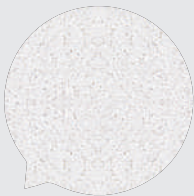


Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
60x40	10	4.16	140	9.60	1344



Colors



White



Grey



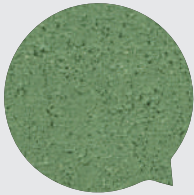
Black



Extra Black



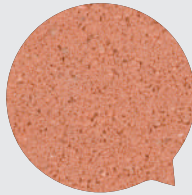
Brown



Green



Red



Extra Peach



Ocher



Extra Ocher



Eko

Eco



"Eko" tiles are meant for tiling of parking lots and other areas where water retention is to be prevented. Those tiles are installed with a slight distance in between them, in order to enhance drainage. Grout of 3 cm is filled with dirt (grass) or other porous material that drains precipitate and solves the drainage problem without additional investments. These tiles are used on garage ways, parking lots and other public or private areas.



Specifications of "Eko" tiles

BAS EN 1338

BAS EN 1339

"Eko" tiles fully meet quality requirements according to standards BAS EN 1338 and BAS EN 1339.

Stable shape, dimensions and sophisticated appearance.

High quality of product.

Resistance to pressure.

Resistance to tear tension.

Frost resistance.

Resistance to defrosting salt

Resistant to water absorption.

Resistance to wearing.

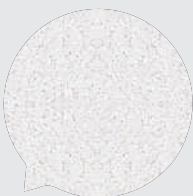


Please see symbol legend according to contents.

dimensions (cm)	thickness (cm)	pieces/m ²	kg/m ²	m ² /pal.	pallet mass
30x20	8	13.17	114.32	9.60	1143



Colors



White



Grey



Black



Extra Black



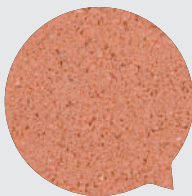
Brown



Green



Red



Extra Peach



Ocher



Extra Ocher

Wordbook of symbols



For pedestrian surfaces – all products are meant to be used on pedestrian areas besides the use in car traffic. Areas covered in concrete tiles are easy to maintain, esthetically satisfying and functional.



For light traffic – concrete tiles are produced by technology of vibro-pressed concrete, so they show high compression strength. Tiles of thickness of 6 cm are to be used for light traffic of cars and trucks of up to 3.5 tons. If the road subsoil layer is of high quality, these tiles may be used for heavy traffic of trucks and other vehicles.



For heavy traffic – for surfaces exposed to heavy loads we produce tiles of thickness of 8 cm. Larger size of this product enables installation on industrial plateaus with heavy traffic of trucks and loaders, on parking lots, streets, parks, garages, etc.



Smooth surface – the tile comes from production as final product, with no additional processing, so it has even structure and color. Tiles are anti-slip, as all other tiles from our production program. They also have high resistance to wearing.



Additional surface treatment – the surface area is additionally processed. These are “Rus-tik” tiles, with broken edges, where additional treatment creates the vintage, rustic look. During the production, after the tiles achieve certain hardness, the edges are broken off, the surface structure is worn using the technology of drum, creating tiles with rounded edges and worn surface that look aged... Other line of tiles with additional treatment is “Elegant” line. Special technological procedure of rinsing in fresh concrete reveals the structure of used colored granules and little stones in the final layer.



Deep impregnation – During the production procedure, additives are added to fresh concrete that make the hardened concrete hydrophobic (it repels water). Absorption of water and humidity from the soil and the surroundings is prevented. Products which are deeply impregnated do not get weathered even in the presence of defrosting products (salt for defrosting). Hydrophobic products are very resistant to elements and they are suitable for both winter and summer conditions..



Anti-slip – surface resistant to slipping – all tiles we produce have their upper, wearing layer made of materials that make them anti-slip, satisfying all safety standards for both private and public areas.



Resistant to defrosting in the presence of salt – tiles are produced according to standards BAS EN 1338 and BAS EN 1339, and they guarantee resistance to frost and to defrosting salt. All products are for outdoor use, so they are exposed to frost and defrosting salt. Resistance of tiles to said effects is examined both in our own, modern and adequately equipped laboratory and by authorized institute according to valid standards. Our products are also resistant to wear produced on roads and pedestrian paths. Final layer is produced with pure quartz sand that, by its petrography, ensures all the stated qualities of the product.



Packed on a pallet – the symbol marks the packaging of the product, i.e. that the product is packed on a wooden pallet. Pallets are reusable and typically the invoiced rental charge is returned to the customer after return of the pallets.



Packed in bags – The symbol marks the packaging of the product, i.e. that the product is packed into industrial bags that ensure sufficient load bearing and safety. These are all products in "Rustik" line that do not need to be packed on wooden pallets because of their final treatment. Bags may be laid on wooden pallets for easier transport and manipulation. Bags and pallets are reusable and rental fee is usually invoiced and collected to be returned after the return of bag/pallet.



Tradition and quality – Binis has been in the business of production of concrete and concrete products for almost 30 years. Nowadays, the production is fully automated, with the system of computer control and management. All input materials and all final products are tested and controlled in our own laboratory that is equipped according to requirements of standards.



Resistant to wear – Concrete wear is characteristic of areas with heavy traffic, from pedestrian paths and roads to airport runways. On surfaces where better resistance to wear needs to be achieved, the surface layer is made of concrete with quartz or eruptive aggregate (all of our products).



Ecologically acceptable – BConcrete is safe, durable and empirically tested construction material, with all its components being ecologically safe. There are no harmful effects on the environment in the process of concrete production, in its usage and even in its recycling.



High strength – Our products are of excellent quality due to use of high quality materials and excellent, proven technology of production. Compression strength is extremely high, over 50 N/mm², as well as tearing strength of over 5 MPa, all according to the requirements of standards, and often exceeding requirements of EU standards.

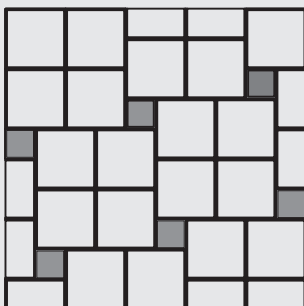


Guarantee of quality 2 years – Binis guarantees for usual quality and quantity of its products. Upon customer's request, Binis will deliver to the customer all needed written and other proofs of quality and conformity of delivered concrete products according to valid regulations and standards. Guarantee for concrete products of Binis is 2 years from the day of delivery.

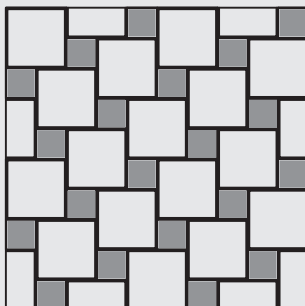
Laying schemes

KLASIK I ELEGANT

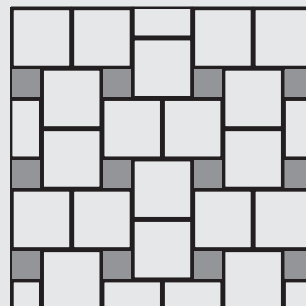
ploča 20x20 94%
ploča 10x10 6%



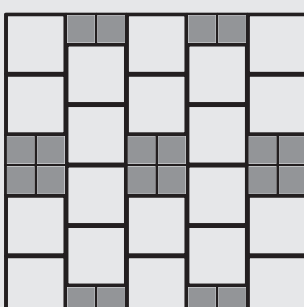
ploča 20x20 80%
ploča 10x10 20%



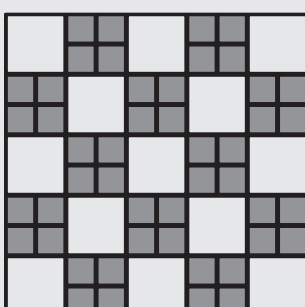
ploča 20x20 89%
ploča 10x10 11%



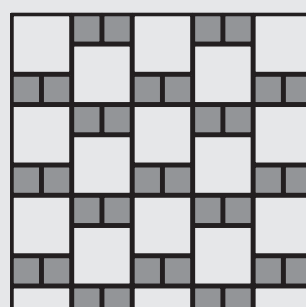
ploča 20x20 80%
ploča 10x10 20%



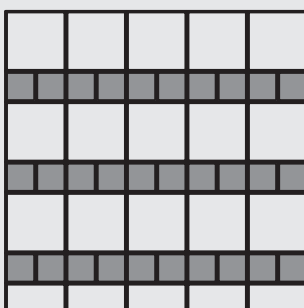
ploča 20x20 50%
ploča 10x10 50%



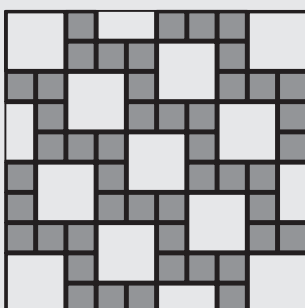
ploča 20x20 66,67%
ploča 10x10 33,33%



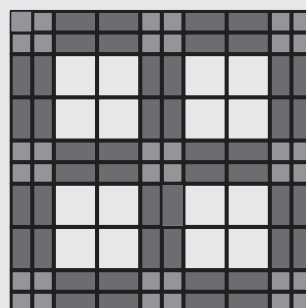
ploča 20x20 66,67%
ploča 10x10 33,33%



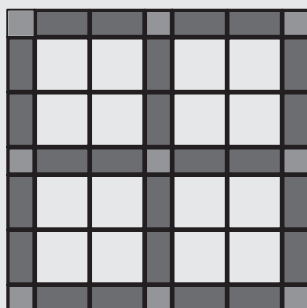
ploča 20x20 50%
ploča 10x10 50%



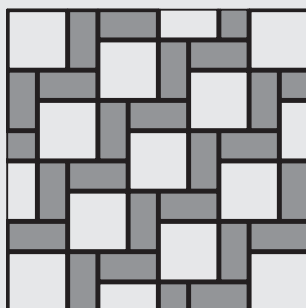
ploča 20x20 33%
ploča 10x20 49%
ploča 10x10 18%



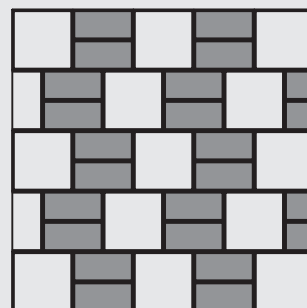
ploča 20x20 53%
 ploča 10x20 40%
 ploča 10x10 7%



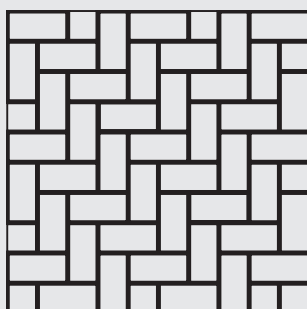
ploča 20x20 52%
 ploča 10x20 48%



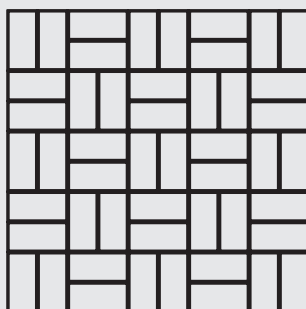
ploča 20x20 50%
 ploča 10x20 50%



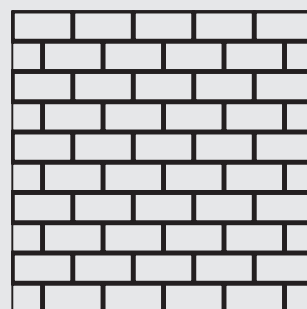
ploča 10x20 100%



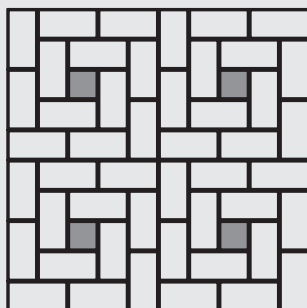
ploča 10x20 100%



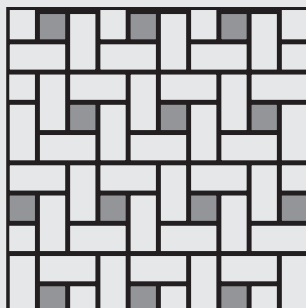
ploča 10x20 100%



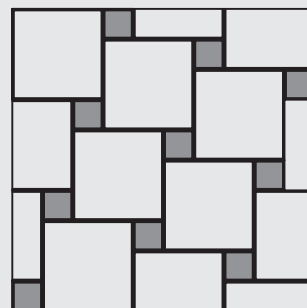
ploča 10x20 96%
 ploča 10x10 4%



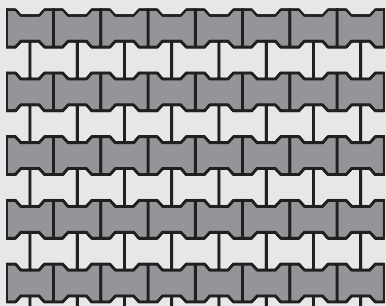
ploča 10x20 89%
 ploča 10x10 11%

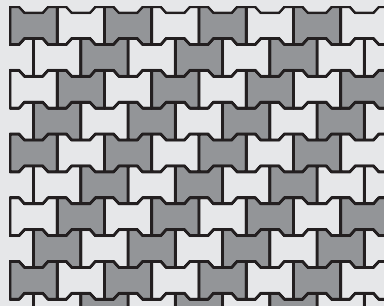


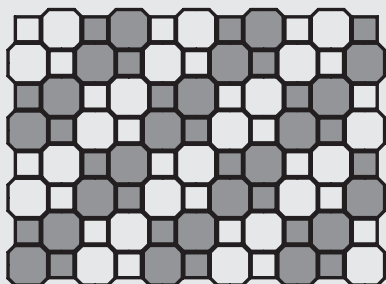
ploča 30x30 90%
 ploča 10x10 10%

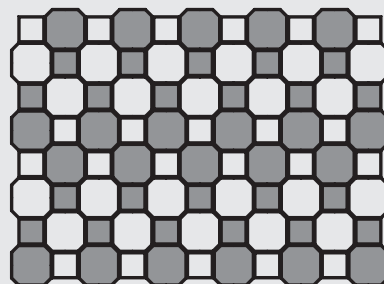


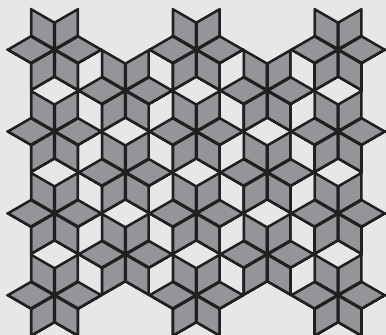
ploča behaton  50%

ploča behaton  50%

ploča behaton  50%

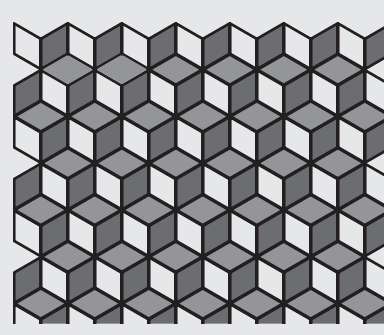
ploča behaton  50%

ploča reket  50%

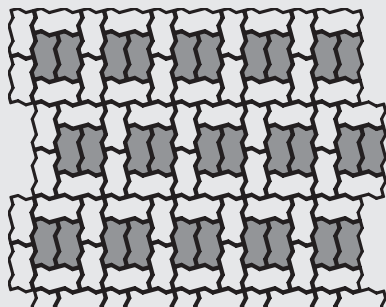
ploča reket  50%

ploča reket  50%

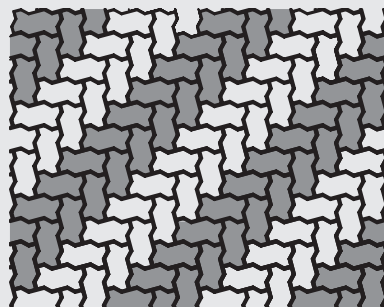
ploča reket  50%

ploča romb  66%

ploča romb  34%

ploča romb  33.33%

ploča romb  33.33%

ploča romb  33.33%

ploča uni  67%

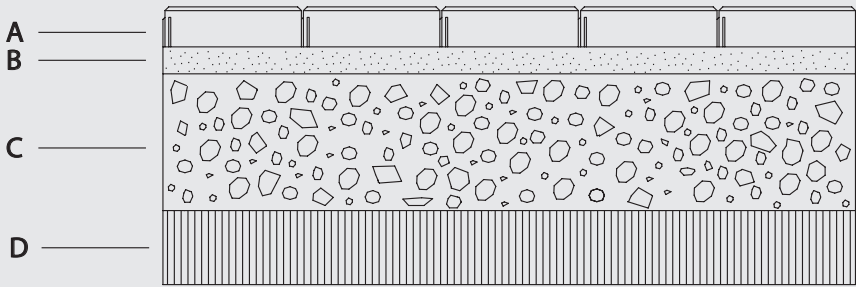
ploča uni  33%

ploča uni  50%

ploča uni  50%


Installation of tiles, recommendations and instructions

DETERMINING LAYER DIMENSIONS

Correct determination of layer dimensions in tiling is crucial for longevity of covered surface. Determination of layer dimensions is performed in accordance with the purpose of the covered area (table 1, drawing 1).



Drawing 1

Well-drained surface				
NAME OF THE LAYER	Surface lining	layer for instal- lation	subsoil	compacted soil
SYMBOL ON THE DRAWING	A	B	C	D
TYPE OF MATERIAL	vibro-pressed tiles	crushed stone aggregate2-4 or 4-8 mm	crushed stone aggregate 0-32 mm	Soil
PEDESTRIAN TRAFFIC pedestrians, bicycles Squares, plateaus, walkways, pedestrian paths, pools, cycling paths, yards, areas around buildings...	40 or 60mm	30-50 mm	200 mm	-
LIGHT PASSENGERS TRAFFIC cars, motorbikes, vans, small heavy vehicles Streets in residential blocks, plateaus around business buildings, large yards, access ramps...	60 or 80 mm	30-50 mm	200 mm	-
HEAVY GOODS TRAFFIC trucks, heavy trucks, buses cargo centers, bus stations, shopping malls, roads with high frequency of traffic, road stops...	80 or 150 mm	30-50 mm	300 mm	-

Table 1

1 Determination of height levels

At the beginning of installation, it is necessary to determine height levels and slopes. Slopes are defined based on the need for drainage of rainwater and they have values from 0.5-2.0%. It should be taken into account that on tiled surfaces, some of the rainwater gets drained through grouts.

2 Base layer

Crushed aggregate fraction 2-4 or 4-8 mm is evenly spread on the even, previously prepared surface (subsoil 20-30 cm thick, well compacted, or the existing concrete surface) in the layer of 3-5 cm. Crushed aggregate is evened by aluminum profiles and the prepared surface is not compacted.

3 Tiles laying

Laying of tiles starts from the end with the thickest base layer. Tiles should not be installed too close to each other, for it would be impossible to even the differences in height because tile edges might break. It is advisable to use tiles from different pallets (at least three) in order to avoid differences in color hues. It is especially applicable to tiles with several tones of color ("Color mix")

4 Grouting

Spaces between tiles are filled with grouting material (recommendation - quartz sand fraction 0.3-1.2 mm). The dry quartz sand should fill the spaces between tiles completely. The surface is cleaned from excessive sand with broom, then compacted using vibrating plate with silicone rubber lining. Vibrating rolls are not to be used for they might damage the final layer of concrete tiles. After compacting, grouting sand is applied once more and the surface is cleaned with broom again. Grouting should be repeated in 20-30 days if possible.

DIMENSIONS TOLERANCE

According to European norms and valid standards, the allowed discrepancies in dimensions of tiles and curbs are the following:

- for tiles: ± 2 mm by length and width, ± 3 mm by height
- for curbs: $\pm 1\%$ by length (not more than 10 mm) of the side $\pm 3\%$ (not more than 5 mm), $\pm 5\%$ for other parts (not more than 10 mm)

During installation, it is advisable to use paver screed at every couple of rows to check if the rows are straight and parallel.

"FLOWERING" EFFECT (appearance of white stains)

Sometimes white or grey stains appear on surface of tiles or curbs – so-called "lime stains". During the hardening of the concrete the calcium hydroxide is produced and it appears on the surface through capillaries in the concrete. In contact with carbon dioxide on the surface of concrete it creates calcium carbonate (lime). After some time of usage of tiled surface and different weather conditions, this effect vanishes permanently. The "flowering" effect has no negative influence on the quality of product.

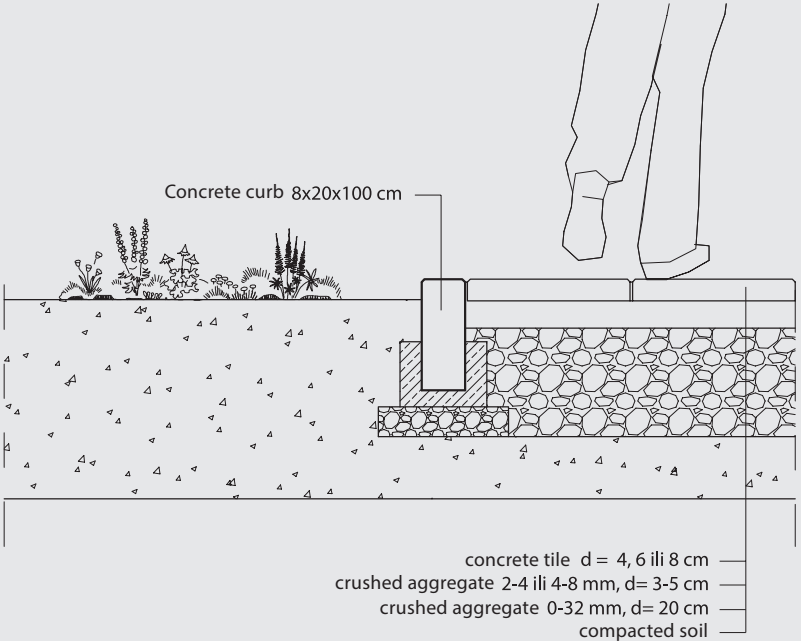
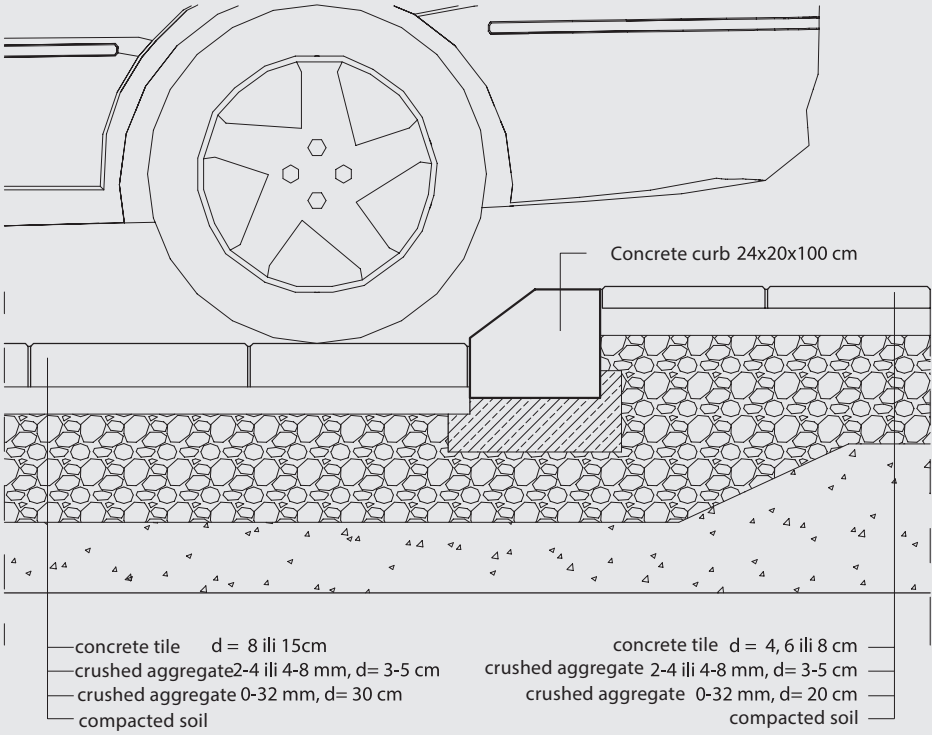
COLORS NOT INCLUDED IN STANDARD OFFER

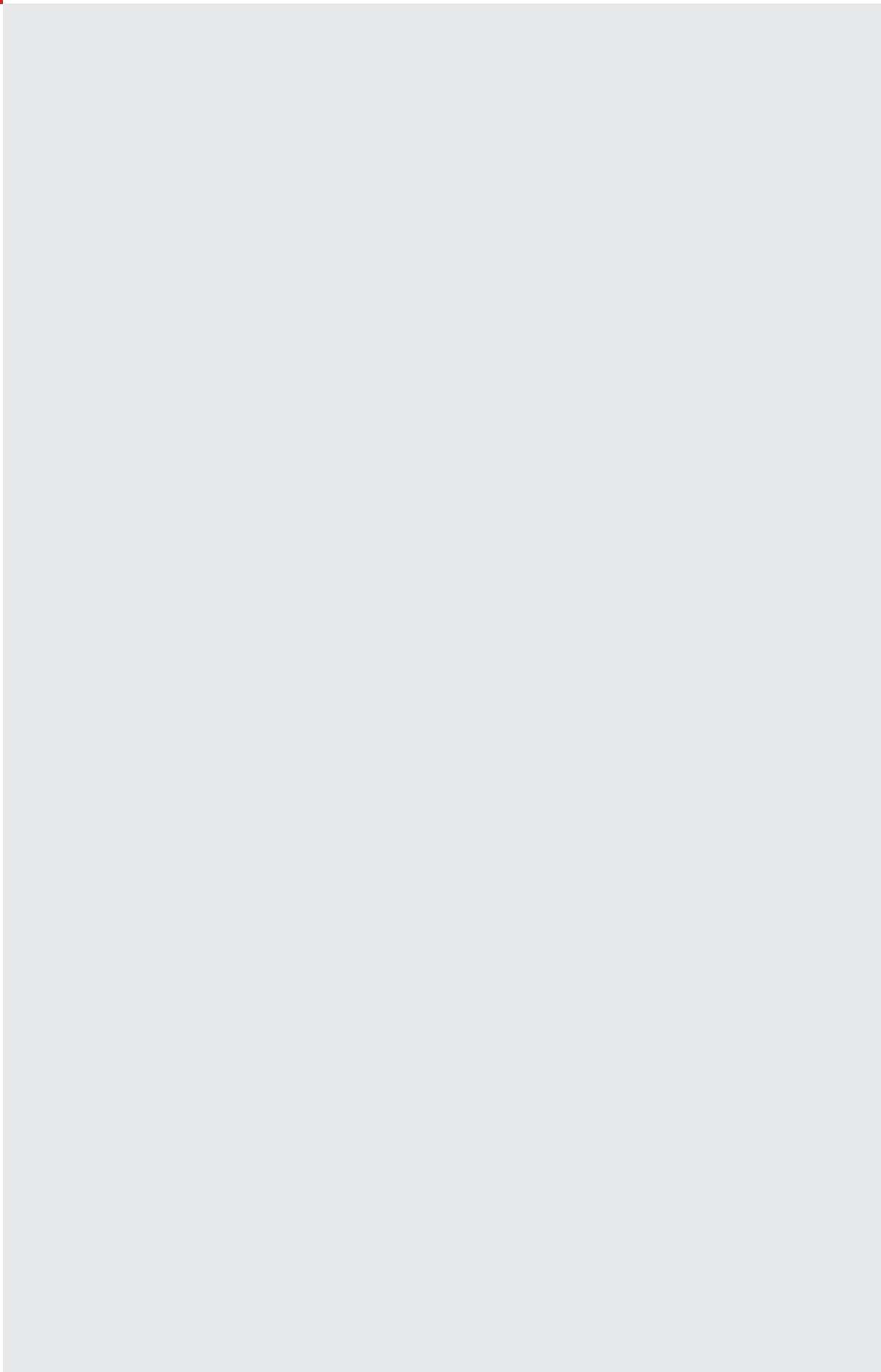
If you wish tiles of color that is not included in the standard offer, we can produce tiles according to your request if the quantity of tiles you request is acceptable.

DIFFERENCES IN COLOR AND TEXTURE

Concrete tiles and curbs are produced from natural materials and discrepancies in color of cement and aggregate colors are possible. In order to avoid imperfections of tiled surfaces, it is advisable to use tiles from at least three pallets during installation. Colors in catalogue may vary from real colors, which is the result of printing process or photographing.

DETAILS OF INSTALLATION OF CONCRETE TILES AND CURBS







Road program



Concrete curbs

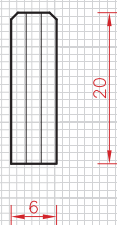
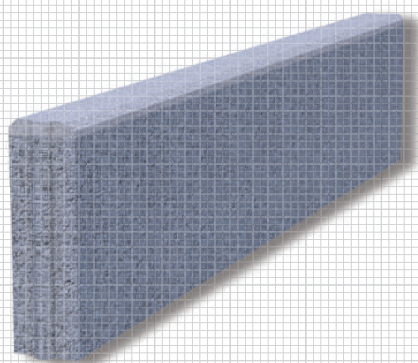
Concrete curbs are very important element in landscaping. They are used for lining out of dirt paths, grass, tiled, concrete or asphalt surfaces. They are available in the following colors: grey, red, brown, ochre, white, green, extra-ochre, extra-black, extra-peach, and in all color mix variants.

We produce it from the high quality concrete C35/45, with the technology of double layer vibro-pressing, with the final layer from pure quartz sand, which increases its resistance to frost and defrosting salt and its wear resistance. Compaction strength after 28 days is ≥ 40 MP, and volume mass of concrete is ≥ 2300 kg/m³. Quality control is carried out in our laboratory and with accredited institutions, so we possess all valid certificates. Curbs are produced according to the standard BASEN 1340.

Installation procedure

Curbs are installed onto the concrete C10 or C15, of consistency of wet soil and of thickness of 20 cm, with side concreting. Distance between curbs should be 3 mm, with expansion joint at every 10 m. Expansion joint is 101 mm wide, and filled with elastic mass.

Ivičnjak 6x20



TECHNICAL CHARACTERISTICS

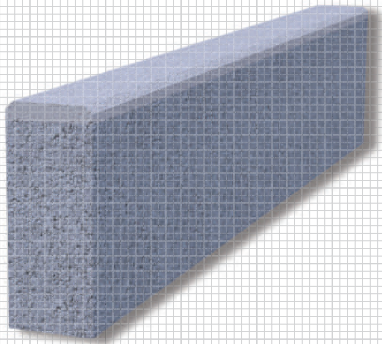
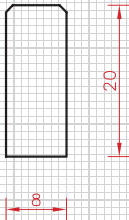
dimen- sions (cm)	kg/ piec.	pieces/ pallet	pallet mass
6x20x100	28	65	1820
6x20x50	14	130	1820
6x20x33	9.33	195	1820
6x20x25	7	260	1820



Curb 8x20

TECHNICAL CHARACTERISTICS

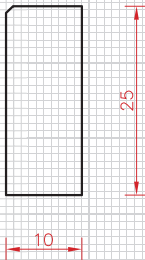
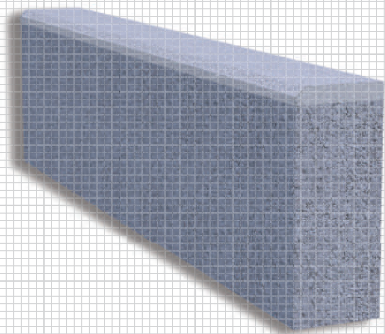
dimen- sions (cm)	kg/ piece	pieces/ pallet	pallet mass
8x20x100	38	50	1900
8x20x50	19	100	1900
8x20x33	12.67	150	1900
8x20x25	9.50	200	1900



Curb 10x25

TECHNICAL CHARACTERISTICS

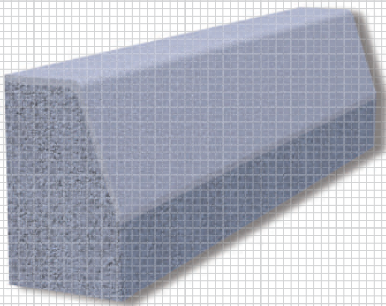
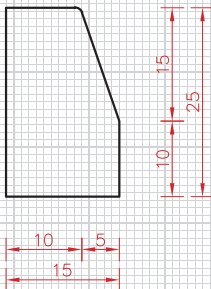
dimen- sions (cm)	kg/ piece	pieces/ pallet	pallet mass
10x25x100	58	28	1624
10x25x50	29	56	1624
10x25x33	19.33	84	1624
10x25x25	14.50	112	1624



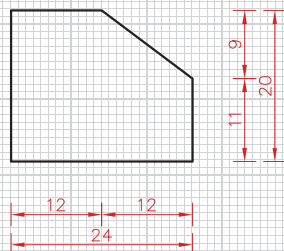
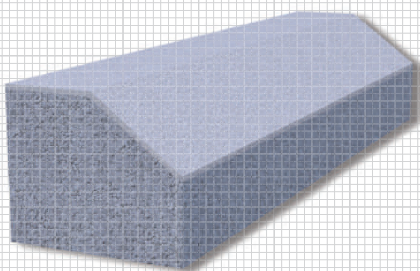
Curb 15x25

TECHNICAL CHARACTERISTICS

dimen- sions (cm)	kg/ piece	pieces/ pallet	pallet mass
15x25x100	80	24	1920
15x25x50	40	48	1920
15x25x33	26.67	72	1920
15x25x25	20	96	1920



Curb 24x20



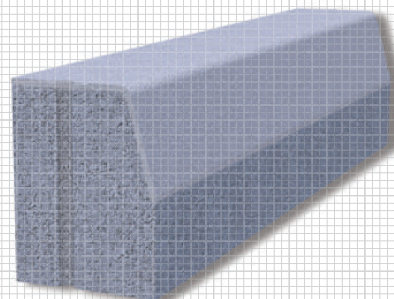
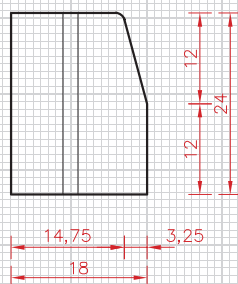
TECHNICAL CHARACTERISTICS

dimensions (cm)	kg/ piece	pieces/ pallet	pallet mass
24x20x100	102	20	2040
24x20x50	51	40	2040
24x20x33	34	60	2040
24x20x25	25.50	80	2040

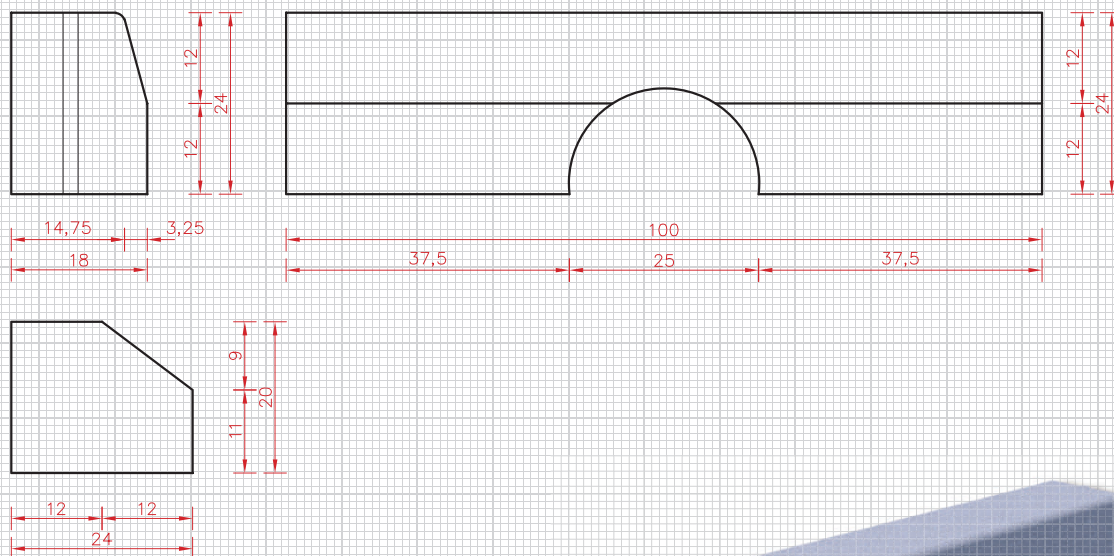
Curb 18x24

TECHNICAL CHARACTERISTICS

dimensions (cm)	kg/ piece	pieces/ pallet	pallet mass
18x24x100	99	20	1980
18x24x50	49.50	40	1980
18x24x33	33	60	1980
18x24x25	24.75	80	1980

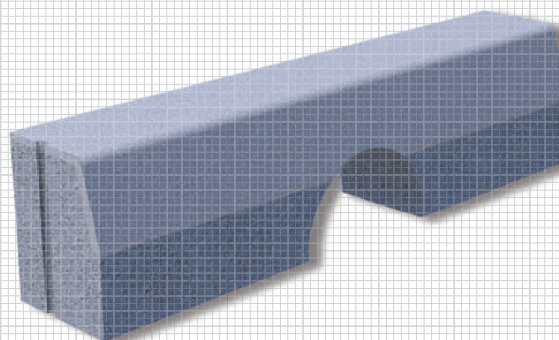


Curb with drainage opening



TECHNICAL CHARACTERISTICS

dimensions (cm)	kg/piece	pieces/ pallet	pallet mass
18x24x100	86	20	1720
24x20x100	85	20	1700



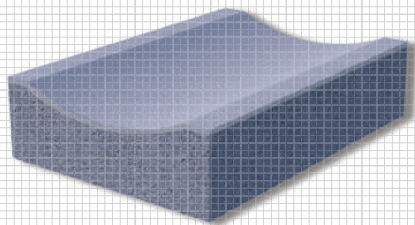
Drainage channels

Drainage channel R3

Drainage channel R3 is used for draining rainwater towards drains and sewage manifolds. It is produced with the technology of two-layer vibro pressing, with final layer of pure quartz sand, increasing its resistance to frost and defrosting salt and resistance to wear. Compaction strength after 28 days is ≥ 40 MPa, and volume mass of concrete is ≥ 2300 kg/m³. Quality control is carried out in our laboratory and with accredited institutions, so we possess all valid certificates. Curbs are produced according to the standard BAS EN 1338 i EN 1339.

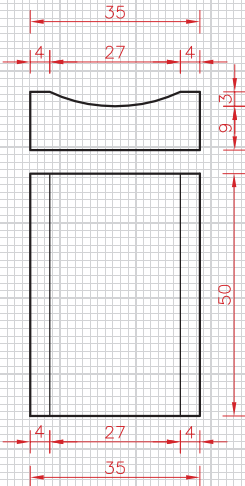
Installation procedure:

Installation of drainage channels is simple and quick. They are placed onto concrete C10 or C15, of consistency of wet soil and of thickness of 20 cm, with side concreting.



TECHNICAL CHARACTERISTICS

dimen- sions (cm)	kg/ piece	pieces/ pallet	pallet mass
35x50x12	38	48	1824

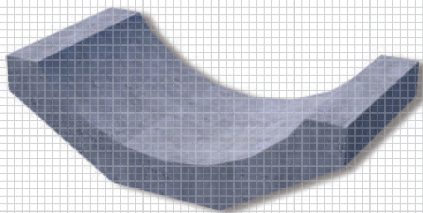


Drainage channel R4

Drainage channel R4 is used for draining rainwater from embankments, roads, in cuts and sidehill cuts, etc. It is produced with the technology of vibro-pressing, from high quality concrete C35/45, MB 45.

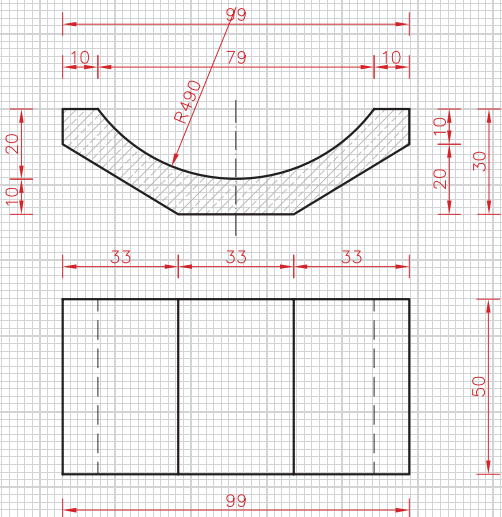
Installation procedure:

The base should be made of aggregate, fraction Dmax = 32 mm. It is placed onto sand or gravel layer so it fully lies along its length, and gravel lining is then installed.



TECHNICAL CHARACTERISTICS

dimen- sions (cm)	kg/ piece	pieces/ pallet	pallet mass
99x50x30	140	8	1120

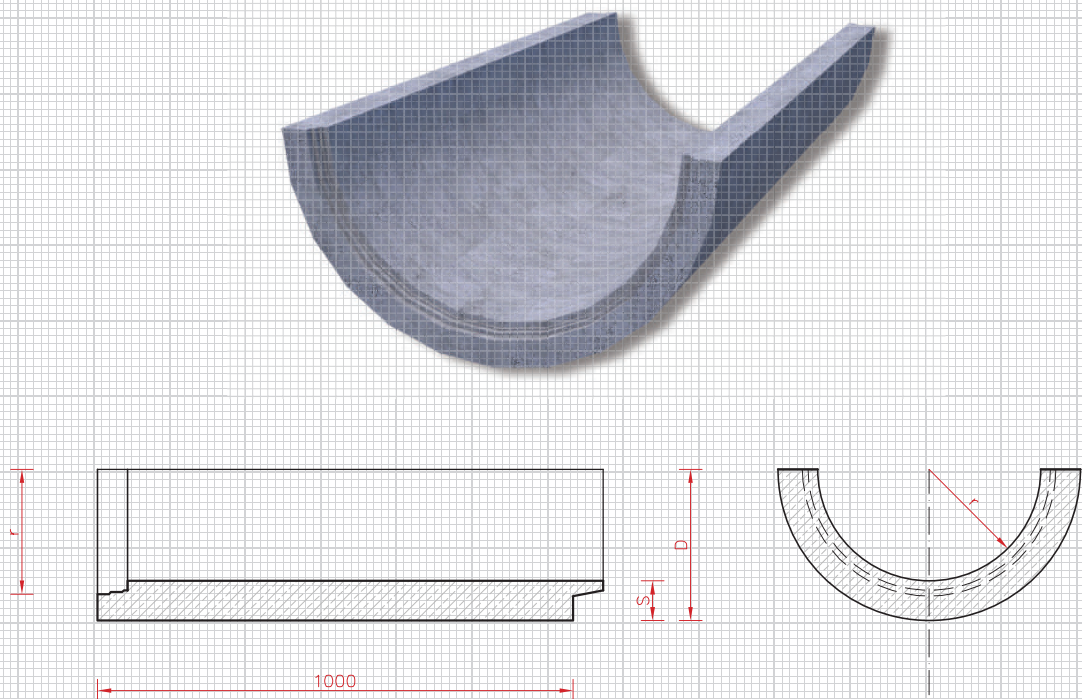


Concrete channels

Concrete channels are produced by vibro-pressing from high quality concrete C 35/45(MB 45). They are used for rainwater drainage. They are produced as half of pipe, but it is possible to produce it as one third of pipe.

Installation procedure:

The base should be made of aggregate, fraction $D_{max} = 32\text{ mm}$. It is placed onto sand or gravel layer so it fully lies along its length, and gravel lining is then installed.



TECHNICAL CHARACTERISTICS

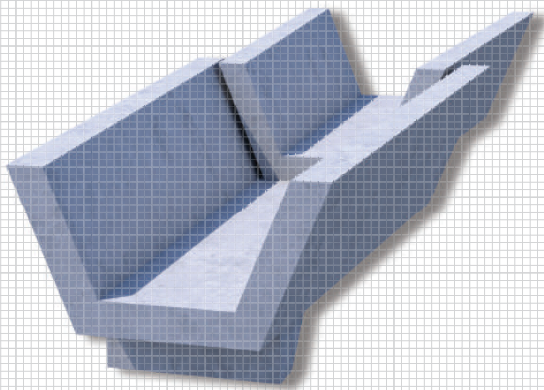
r	D (mm)	S (mm)	weight (kg/piece)
75	99	24	16
100	126	26	22
150	190	40	51
200	245	45	76
250	300	50	120
300	360	60	145
400	480	80	265

Concrete trapezoidal channels with tooth

They are produced from high quality SCC (self-compacting concrete) MB 45, concrete mixture that guarantees smooth surface structure. They are used for drainage of rainwater from slopes, embankments, overpasses, etc. Concrete channel has a “tooth” on its lower side that contributes to the stability of the channel made of interconnected parts.

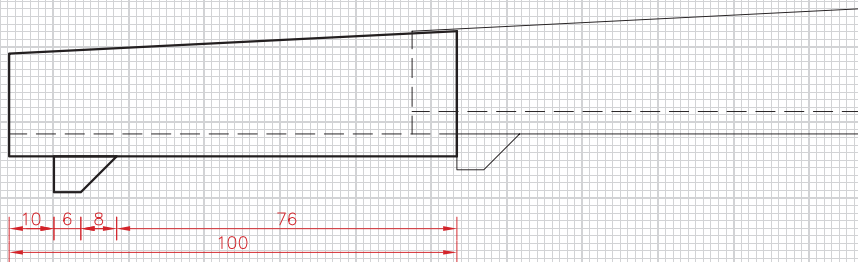
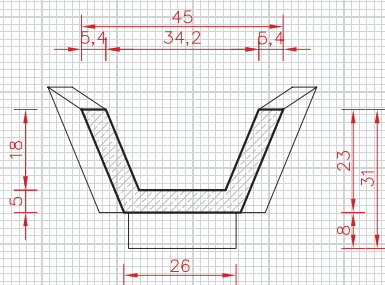
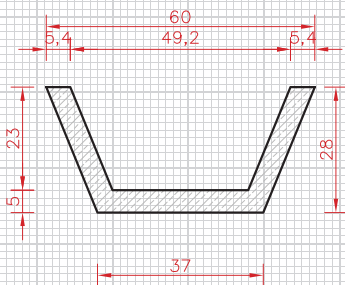
Installation procedure:

They are installed onto well-compacted surface, interconnected using tooth on the lower side, which gives stability to the channel by stabilizing both the connection tooth-channel and channel-base surface.



TECHNICAL CHARACTERISTICS

dimensions (cm)	kg/ piece	pieces/pallet	pallet mass
60/45x100x28/23	90	10	900

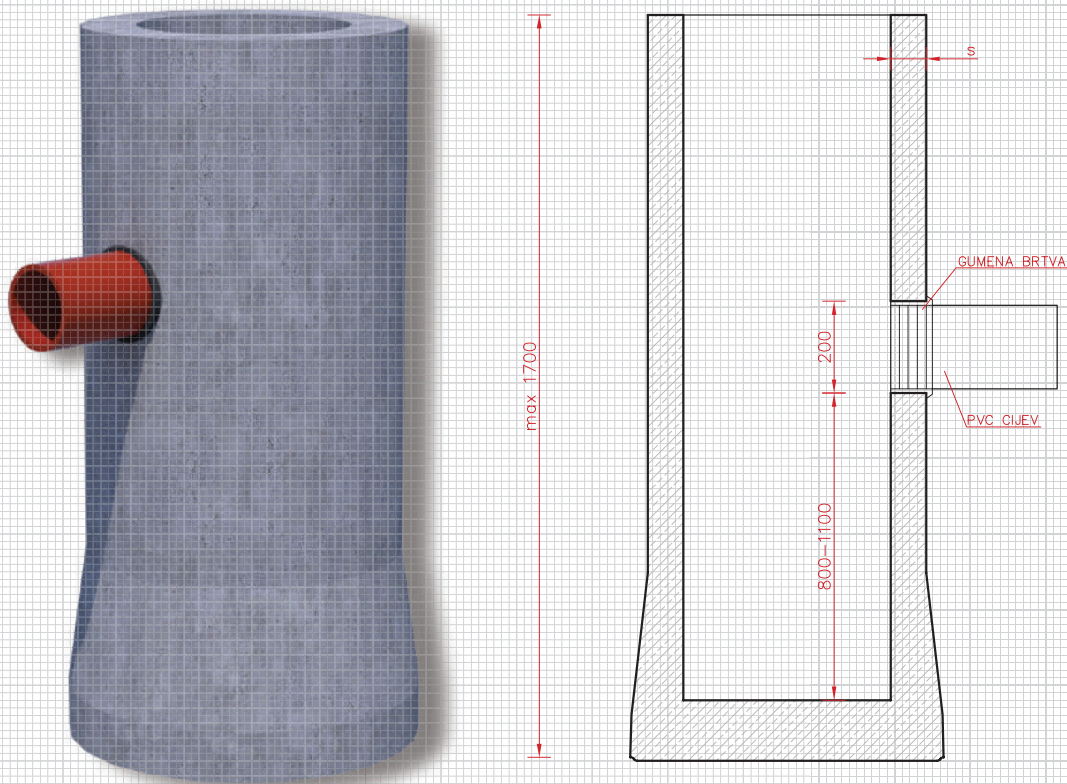


Concrete drains

Concrete drains are used for drainage of rainwater from streets, parks, gas stations, parking lots, etc.

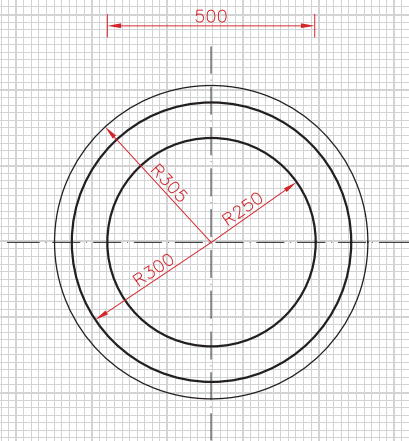
They are produced with the technology of vibro-pressing, from high quality concrete C35/45 (MB 45), guaranteeing full system watertightness.

The production is in accordance with the standard BAS EN 1916.



TECHNICAL CHARACTERISTICS

TIP	diam. $\varnothing$ (mm)	wall thickness s (mm)	length (mm)	weight (kg)
BS1	400	65	1700	450
BS2	500	85	1700	780

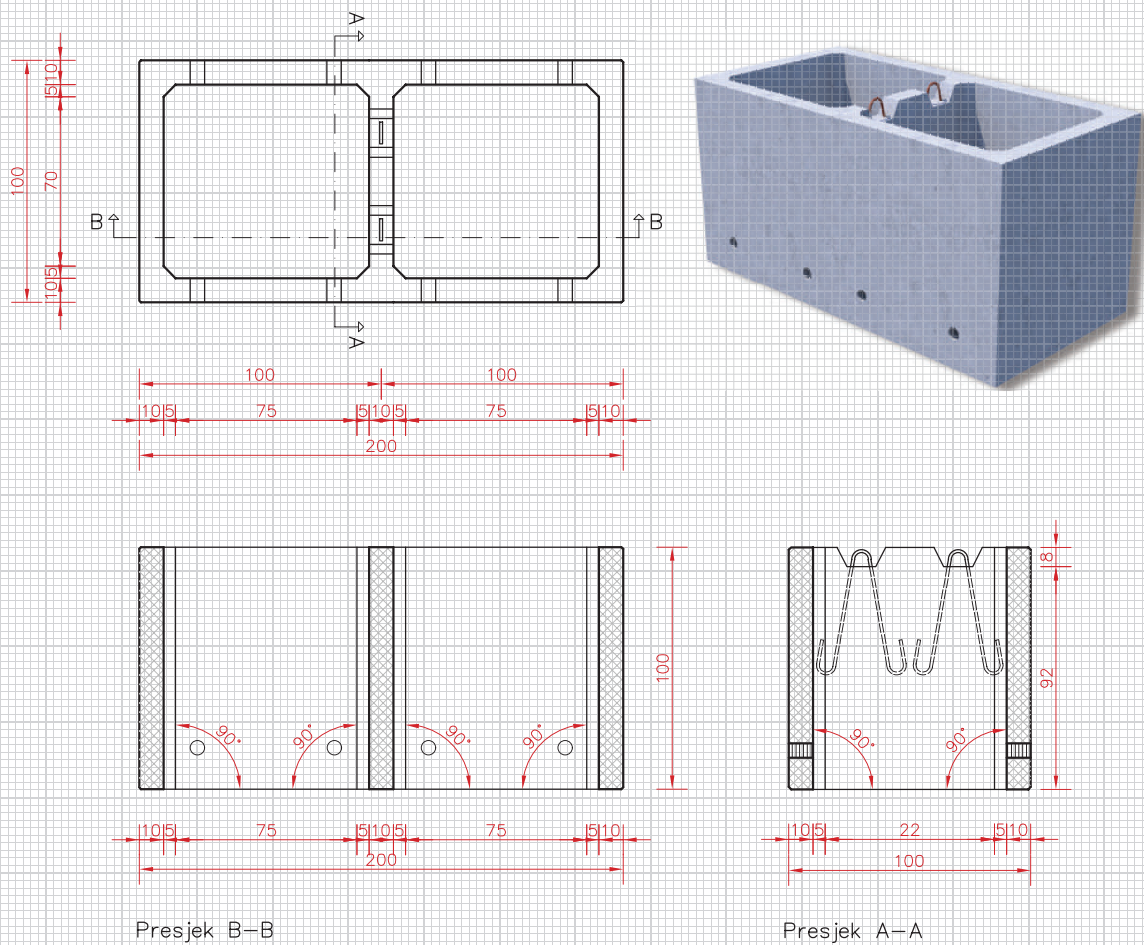




Reinforced concrete gabions

Gabions are used for erosion prevention – they create solid retaining wall, ensuring long-term stability of the terrain.

Preliminary works on the site are minimal and gabions are mounted with the use of truck cranes or excavators. They are made of high quality SCC (self-compacting concrete) MB 45, reinforced with mesh Q 188.



TECHNICAL CHARACTERISTICS

length (cm)	width (cm)	height (cm)	weight (kg)
200	100	100	1656

Oil separators

Drainage of surface or waste water polluted with hydrocarbons, i.e. light mineral oils and solid particles is a persisting problem. Before such water can be released into the environment, it should be cleaned. Standards and valid regulations stipulate very high requirements in relation to environmental protection.

Oil separator of "SUK" type fulfills all prescribed requirements:

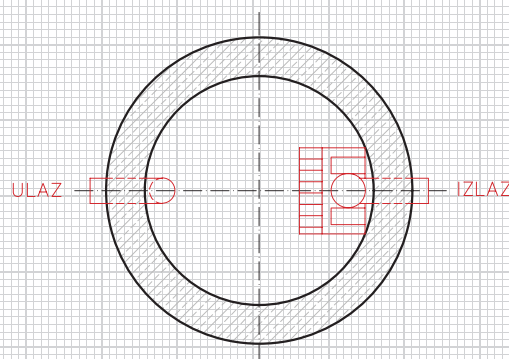
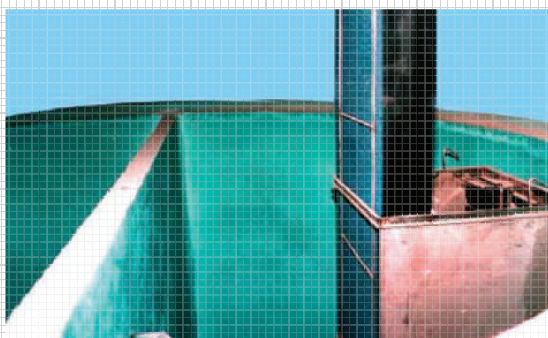
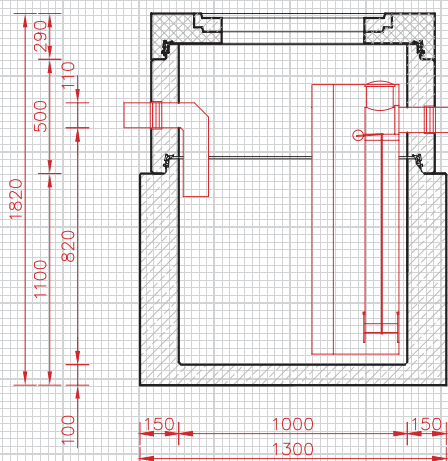
- flow of 3 l/s – 40 l/s
- high strength on release, European norm EN 858-1,2
- automatic closing
- simple usage and maintenance
- low maintenance costs

Application:

Gas stations, car wash stations, car repair shops, parking lots, industrial surfaces and areas where pollution with mineral oils is possible.

System of work:

Water inlet is made in such a way so the mixture of water and mineral oils and solid particles enters the separator at certain level. Solid particles are separated there and they fall to the bottom, while light particles remain on the surface. Due to their density, oils are collected on the surface before the divider filter and in metal insert. Divider (insert) is equipped with a float hat closes the outlet in case of excessive amount of oil in the insert, preventing release of oils into the surroundings.



Sewage systems



Sewage systems

After 20 years of production of watertight concrete pipes and manholes, we offer sewage systems to the market in accordance with the most demanding European standards.

We produce watertight concrete pipes that fulfill requirements of standards BAS EN 1916, BAS U.N1.050 and DIN 4032, with the following characteristics:

- integrated elastic rubber seal
- increased watertightness
- prolonged lifetime, over 100 years

We also produce watertight concrete manholes which fulfill the BAS EN 1917 and DIN 4034 standards, with the following characteristics:

- integrated or additional rubber seal for connection
- integrated rubber elastic seal for concrete rings and cones
- increased watertightness
- prolonged lifetime, over 100 years

Production of vibro-pressed concrete pipes and manholes is performed with modern equipment of new generation, and all according to the applicable standards. High quality concrete for the production of pipes and manholes is produced in concrete plant with a fully automated computer-controlled system equipped with a digital hydraulic control system.

Only certified natural materials are used for the concrete production. Quality of reproductive material and the final product is controlled in the modernly equipped laboratory, as well as in the authorized material testing institutes.

Advantages of prefabricated concrete sewage systems:

- complete water tightness
- quick and easy installation due to built-in rubber seals on pipes and manholes
- due to increased wall thicknesses, great tightness of load on the stiffness
- flexible joints
- a large flow through the pipeline is enabled due to smooth inner walls
- fast, high-quality and long-term sealing of joints of pipes and manholes
- simple and inexpensive maintenance of concrete watertight sewage systems
- quality control at the production stage

Efficiency – Made of natural raw materials available to us (other materials depend on import of resources that are becoming increasingly scarce, as well as on significant increase in crude oil prices).

Durability – Since plastic products are relatively new on the market, it is questionable how the material will behave in exploitation. Concrete manholes and pipes can last for more than 100 years, which is illustrated by many examples from practice.

Strength and stable shape – Concrete pipes and manholes are rigid and they can be calculated for all conditions of loading stiffness and installation.

Stability and safety from moving – Concrete pipes and manholes are fixed with their own weight, for example, due to rising of groundwater level, there is no movement due to their own weight and as such they are not prone to lifting or moving, as opposed to plastic ones.

Diversity of the cross-section—Concrete pipes and manholes can be produced according to the required width, shape, thickness and for different designed nominal stiffness.

Environmentally acceptable—Concrete pipes and manholes are produced with energy savings, from natural materials and they can be recycled, “Byingreen”.

Resistance to temperature change—Concrete pipes and manholes have special properties of the material resistant to high temperatures and flammable liquids. Due to their inflammability, they are suitable for use in the area of gas stations, parking lots, airports, highways, railways, etc.

Installation of concrete pipes and manholes

Base, installation and backfilling of pipes and manholes are prescribed according to the BAS EN 1610, BAS U.N1.054, and DIN 4032 standards.

In the design, the following is determined:

- width of the construction pit
- inclination of the slope of excavation
- material and method of surface stabilization
- characteristics of concrete pipes and manholes, including height
- filling of construction pit (layer thickness, compaction equipment, required compaction)

Before installation of pipes and manholes, it is necessary to remove all large stones and the bottom of the construction pit must be homogeneous and dry. The works must be carried out according to the design; in the places where the pipes are connected there should be recesses in the base.

At the request of the buyer, the manufacturer will provide additional instructions including technical support and instructions for installation of the sewage system.

Transport and storage of concrete pipes and manholes

Transport and storage of pipes and manholes, as well as handling with pipes and manholes are prescribed according to BAS EN 1916, BAS EN 1917 and BAS U.N1.053 standards. Pipes and manholes are loaded onto the transport means with forklifts.

When loading and unloading, there must be no impact and damage and no free fall.

They should be stored on compacted base with vertical storage on the wood beds, with secured sides by wooden wedges. The height of storage is limited by the credit bearing capacity of individual pipe profiles. During storage, the pipe must not be contaminated, especially the joints.

At the request of the buyer, the manufacturer will provide additional instructions for transport and storage.



Concrete manholes

Concrete manholes are produced in different diameters from Ø800 to Ø2000. In the standard production program, there are typical manholes of diameter of Ø1000 mm manufactured according to BAS EN 1917 and DIN 4034 standards.

According to the requirements, the typical prefabricated concrete manholes are made of different prefabricated elements, and different diameters of the inlet and outlet openings. All prefabricated manholes are fitted with rubber seals and they are watertight.

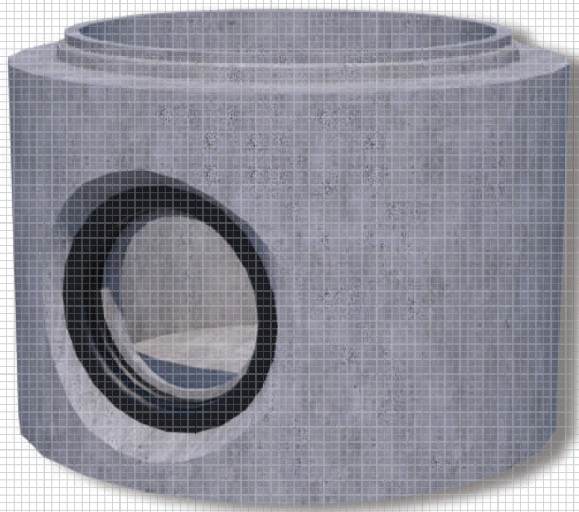
They are used for the construction of fecal and rainwater sewage systems, usually up to a height of five meters. The manholes can be connected to pipelines of different materials: concrete pipes, polyester or polypropylene pipes, etc. The rubber elastic seals, customized to the type of material of connection pipe which is connected to the concrete manhole, guarantee the water tightness. The rubber elastic seals on rings and cones guarantee water tightness between prefabricated gaskets.

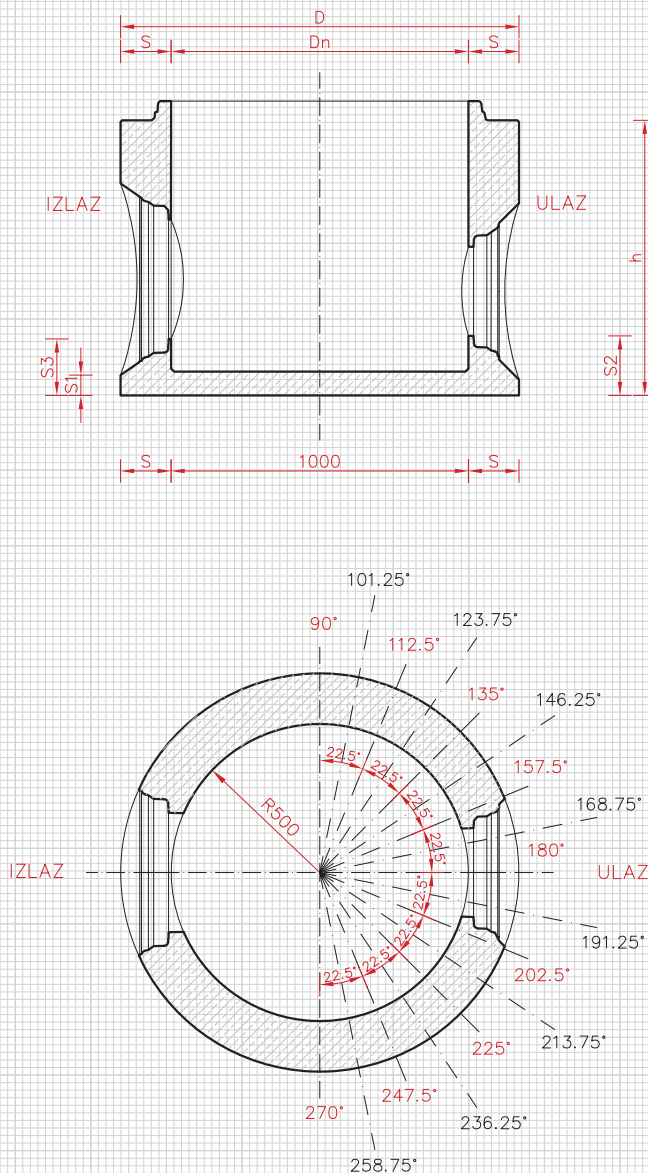


DN1000 concrete manholes with integrated rubber seal

Concrete bases of DN1000 manholes with integrated rubber seals for concrete pipeline

- They fulfill the requirements of the BAS EN 1917 and BAS EN 1610 standards.
- They are produced by vibro-pressing from high-quality concrete C35/45 (MB 45).
- They guarantee a completely watertight sewage system.
- The openings and angles of the input/output are formed according to the project request, all during the production.
- Also, rubber elastic seals in the base of manhole (pipeline and manhole connections – inlet and outlet) are installed during the process of base production.



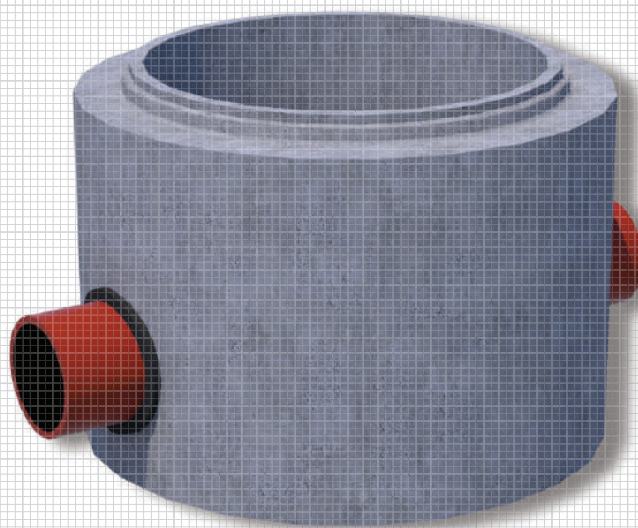


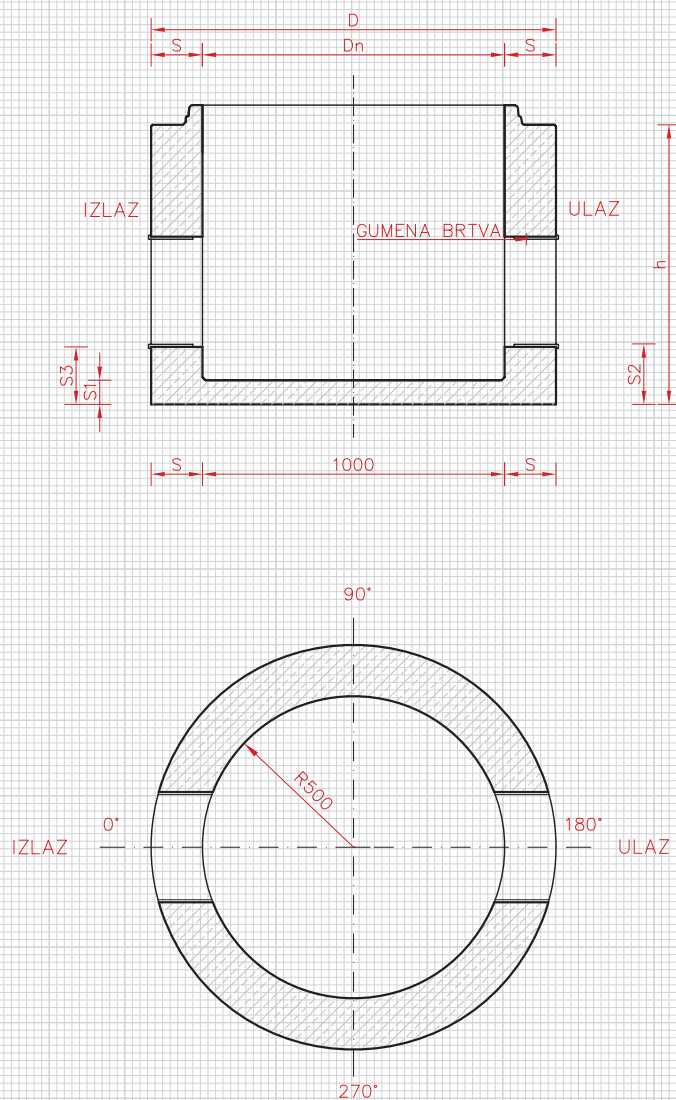
TECHNICAL CHARACTERISTICS

TYPE	diameter		wall thickness		minimum input/output height		height	input/output	weight of full base
	d (ømm)	d1 (ømm)	s (mm)	s1 (mm)	s2 (mm)	s3 (mm)	h (mm)	ømm	kg
BBŠ 1	1000	1340	170	90	200	190	890	300-300	1475
BBŠ 2	1000	1340	170	90	200	190	990	300-400	1605
	1000	1340	170	90	200	190	990	400-400	1585
BBŠ 3	1000	1460	230	90	200	190	1090	400-500	2345
	1000	1460	230	90	200	190	1090	500-500	2305
BBŠ 4	1000	1460	230	90	200	190	1190	500-600	2470
	1000	1460	230	90	200	190	1190	600-600	2425
BBŠ 5	1000	1620	310	90	220	210	1390	800-600	3870
	1000	1620	310	90	220	210	1390	800-800	3705

Concrete bases of DN1000 manholes with additional rubber seals for plastic pipelines

- They fulfill the requirements of the BAS EN 1917 and BAS EN 1610 standards.
- They are produced by vibro-pressing from high-quality concrete C35/45 (MB 45).
- They guarantee a completely watertight sewage system.
- The openings and angles of the input/output are formed according to the requests of the project, after the full base is subsequently produced (forming of opening with diamond crowns).
- Rubber elastic seals in the base of manhole(pipeline and manhole connections – inlet and outlet) will be subsequently installed at the site.





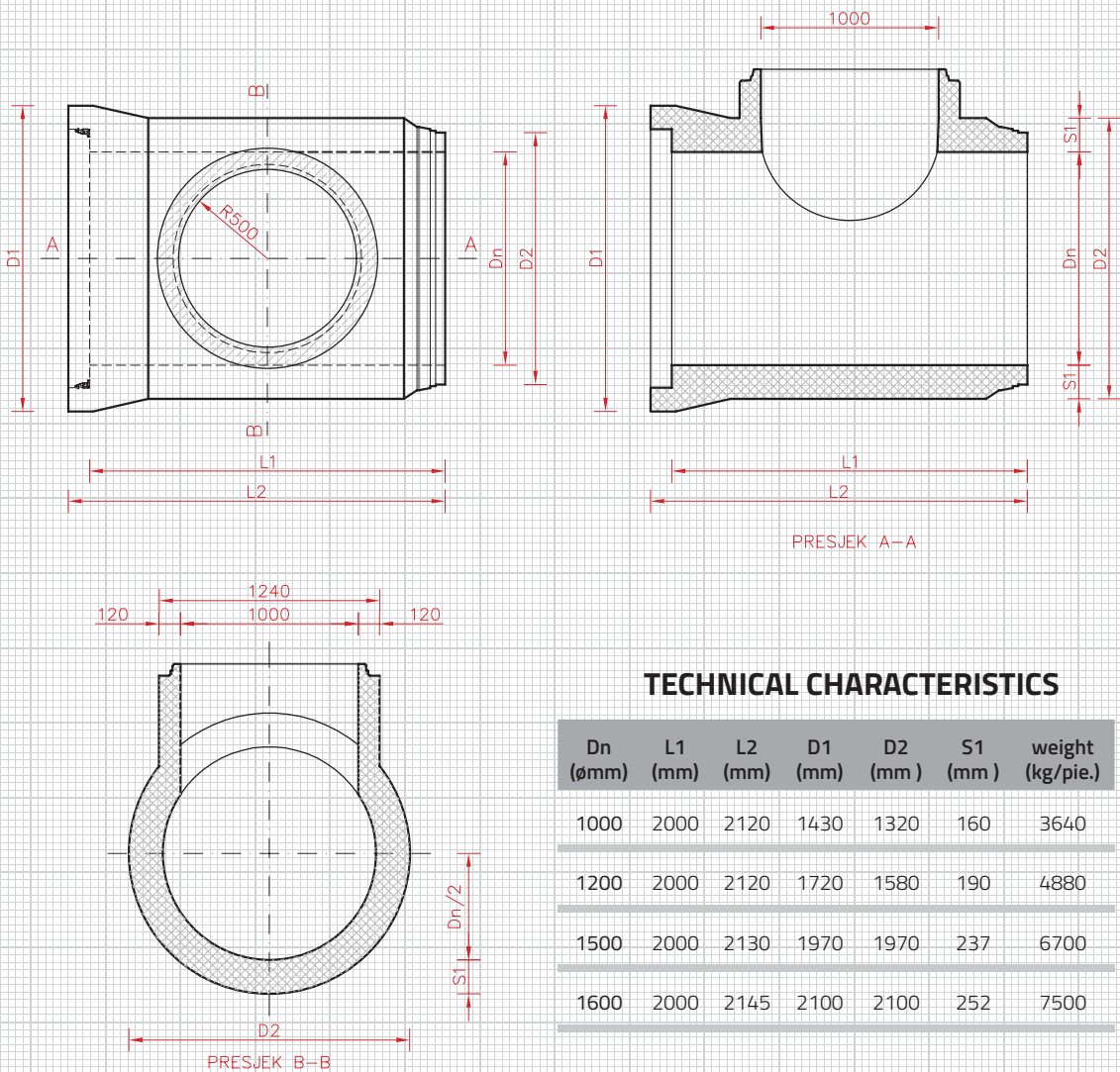
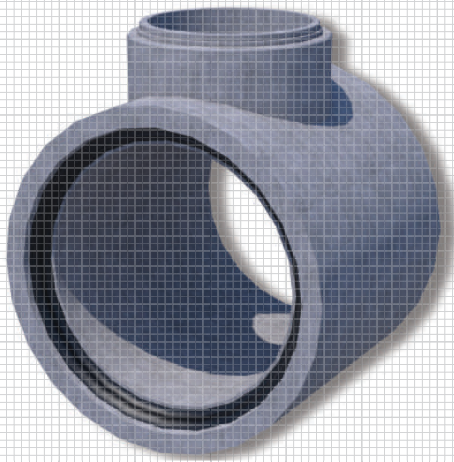
TECHNICAL CHARACTERISTICS

TYPE	diameter		wall thickness		inlet/outlet height		height	input/ output	weight
	dn(ømm)	d (ømm)	s (mm)	s1 (mm)	s2 (mm)	s3 (mm)	h (mm)	ømm	kg
BBŠ 1	1000	1340	170	90	200	190	890	150-400	1535
BBŠ 2	1000	1340	170	90	200	190	990	150-400	1685
BBŠ 3	1000	1460	230	90	200	190	1090	150-400	2525
BBŠ 4	1000	1460	230	90	200	190	1190	150-400	2735
BBŠ 5	1000	1620	310	90	200	190	1390	150-400	4455

Reinforced concrete bases of manhole

with integrated rubber seals for concrete pipes of diameter of DN 1000 – 2000

- They are made for the diameter of the concrete pipeline from DN 1000 to DN 2000.
- They fulfill the requirements of the BAS EN 1917 and BAS EN 1916 standards.
- They are produced by vibro-pressing from high quality concrete C35/45 (MB 45).
- They guarantee completely watertight sewage system.
- Fast and easy installation.
- They are used for the construction of inspection chambers.



TECHNICAL CHARACTERISTICS

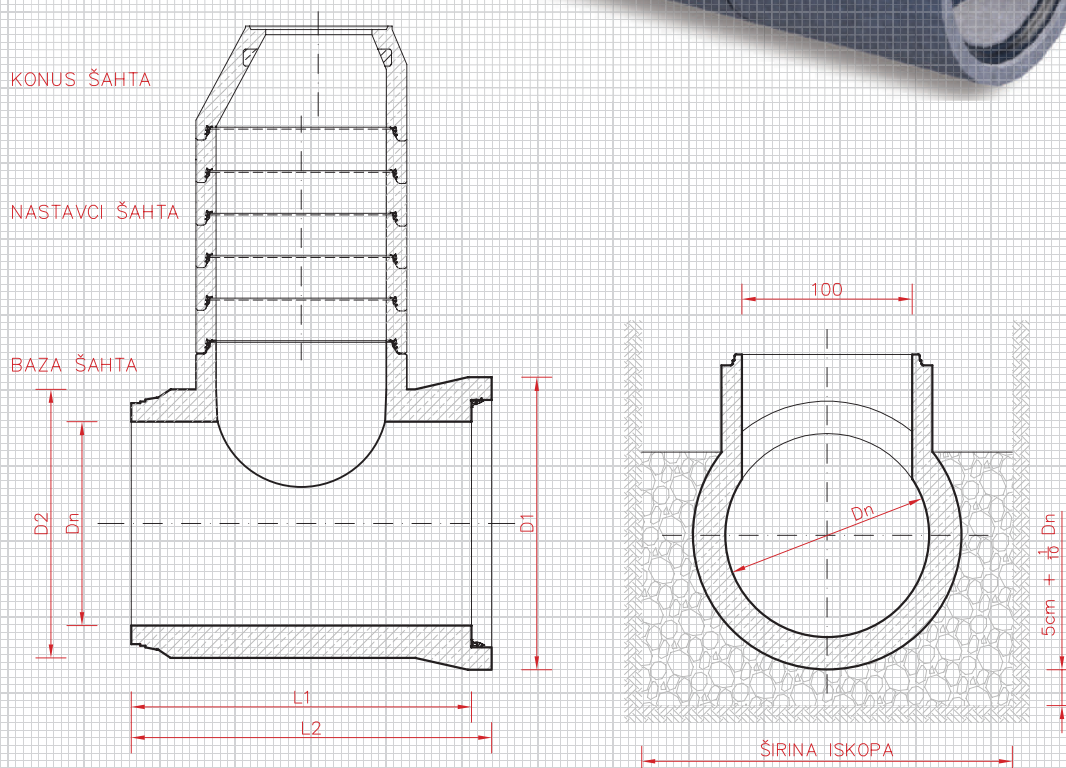
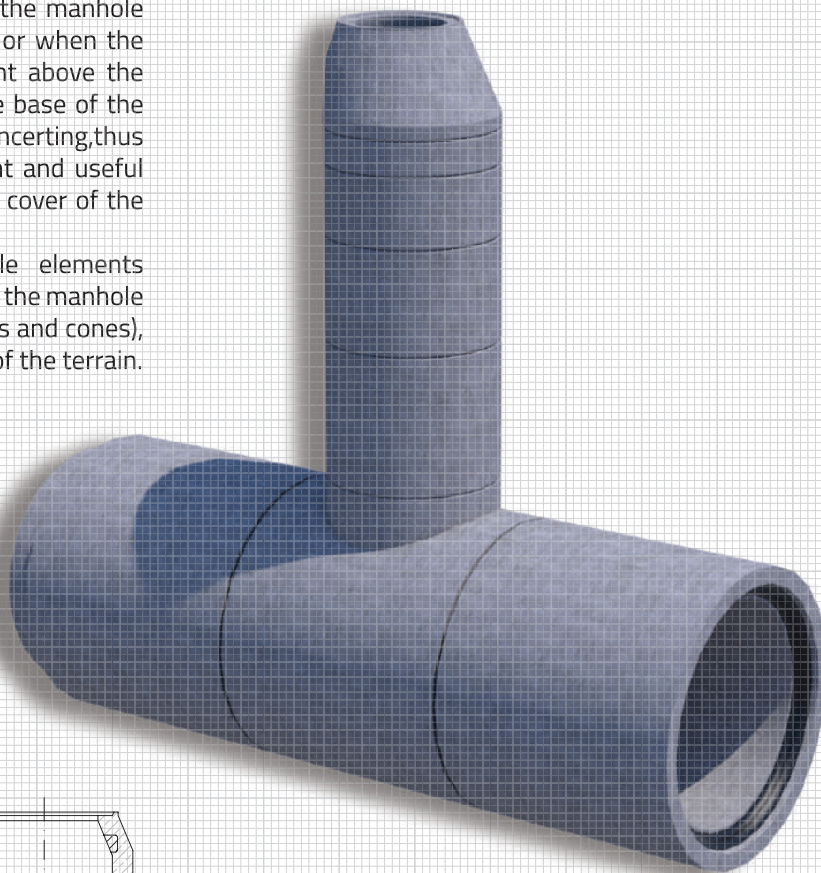
Dn (ømm)	L1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	S1 (mm)	weight (kg/pie.)
1000	2000	2120	1430	1320	160	3640
1200	2000	2120	1720	1580	190	4880
1500	2000	2130	1970	1970	237	6700
1600	2000	2145	2100	2100	252	7500

Installation and stabilization of manhole

Immediately after the installation of manhole base, it is necessary to backfill the side of the manhole with the necessary compaction of layers.

In the case when the manhole is located under the road or when the height of the embankment above the pipe is higher than 2m, the base of the manhole is stabilized by concreting, thus taking over its own weight and useful load through the cast iron cover of the manhole.

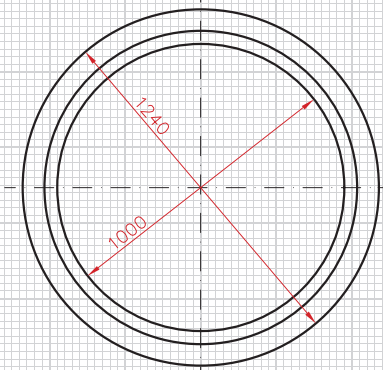
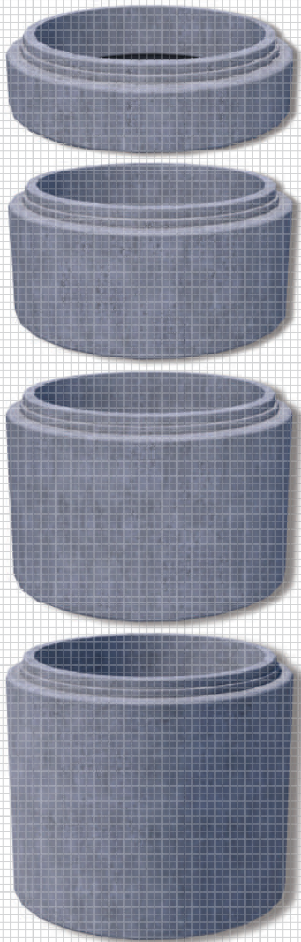
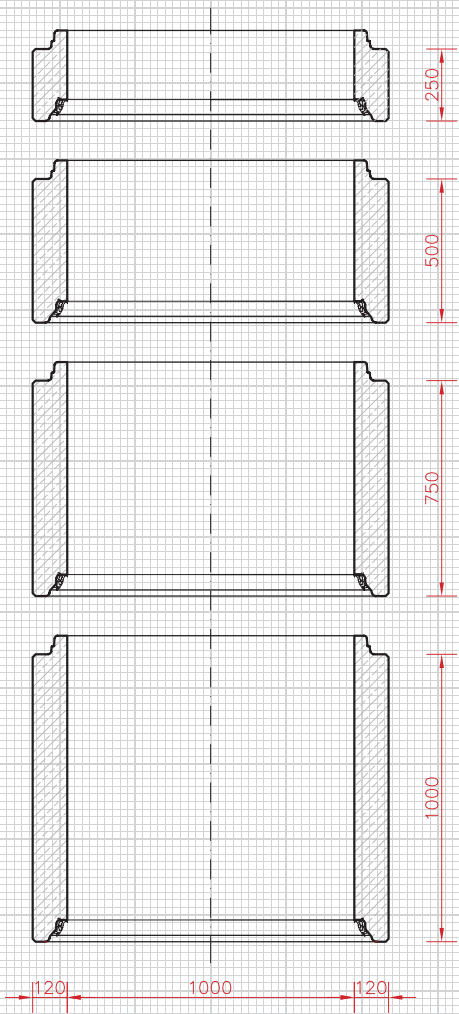
Standard manhole elements are installed on the base of the manhole of diameter DN 1000 (rings and cones), to the designed elevation of the terrain.





Concrete rings of DN 1000 manhole with integrated rubber seals

- Fulfill the requirements of the BAS EN 1917 and BAS EN 1610 standards.
- Produced by vibro-pressing from high-quality concrete C35/45 (MB 45).
- They guarantee completely watertight sewage system.
- Rubber elastic seals in rings are integrated into the elements of manhole during the production process.
- Fast and easy installation.
- They are used to achieve the designed height of inspection chamber.

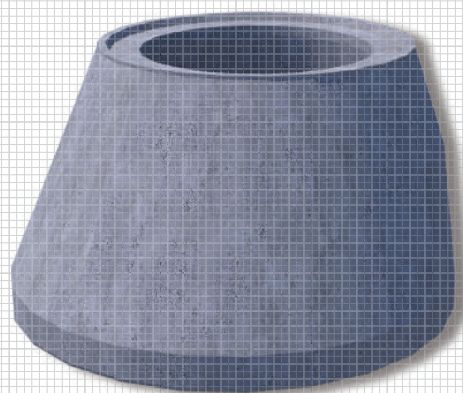


TECHNICAL CHARACTERISTICS

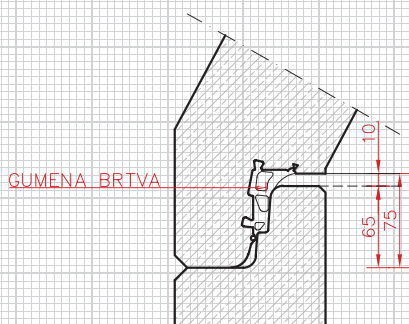
TYPE	diame-ter (ømm)	wall thick-ness (mm)	heigh (mm)	pressure (kN/m²)	weight kg
BP 1	1000	120	250	80	253
BP 2	1000	120	500	80	506
BP 3	1000	120	750	80	759
BP 4	1000	120	1000	80	1012

Concrete cones of DN 1000/625 manhole with integrated rubber seals

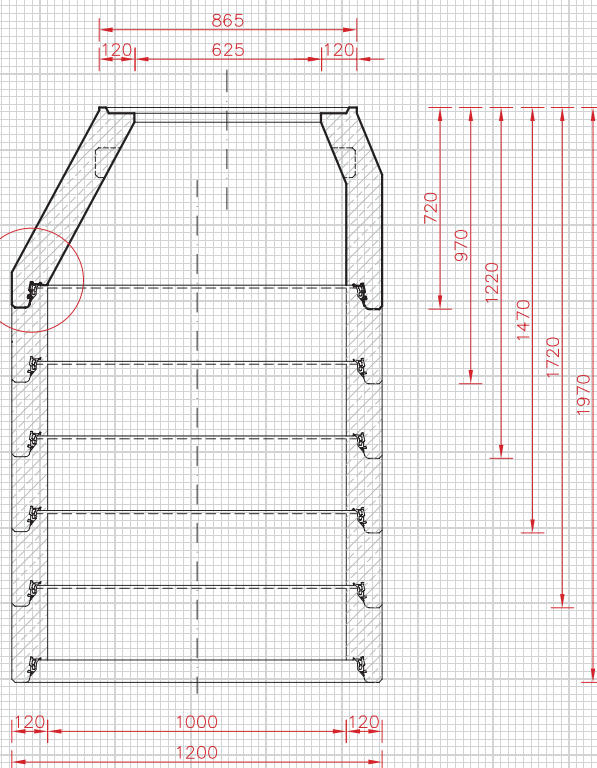
- They fulfill the requirements of the BAS EN 1917 and BAS EN 1610 standards.
- They are produced by vibro-pressing from high-quality concrete C35/45 (MB 45).
- They guarantee completely watertight sewage system.
- Rubber elastic seals in cones are integrated into the elements of manhole during the production process.
- They are used to achieve the designed height of inspection chamber.
- The cast-iron covers are placed on cone elements on the construction site.



DETALJ "A"

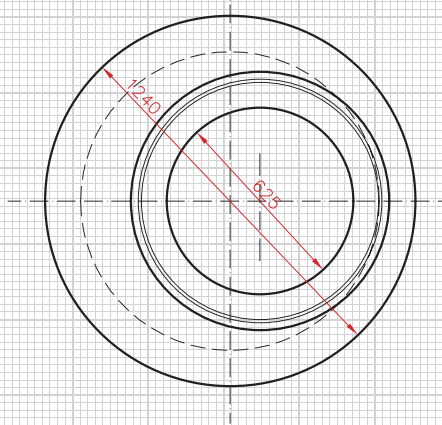


"A"



TECHNICAL CHARACTERISTICS

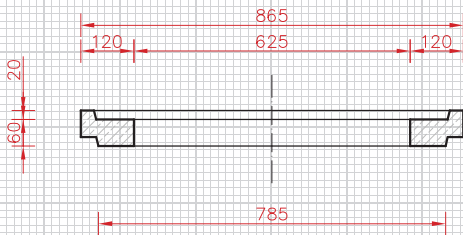
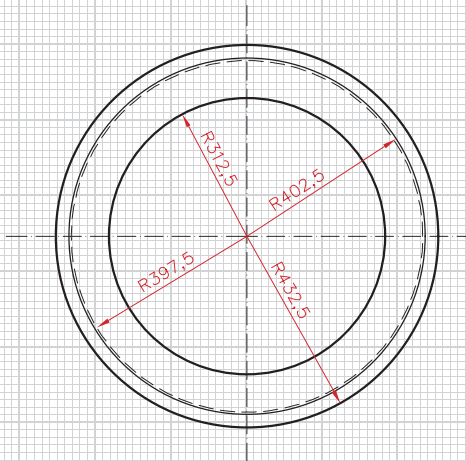
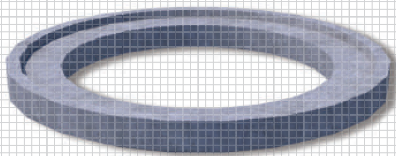
TYPE	diameter (ømm)	wall thick- ness (mm)	height (mm)	weight (kg)
BKŠ 1	1000/625	120	720	600
BKŠ 2	1000/625	120	970	853
BKŠ 3	1000/625	120	1220	1106
BKŠ 4	1000/625	120	1470	1420
BKŠ 5	1000/625	120	1720	1680
BKŠ 6	1000/625	120	1970	1920





Concrete ring of DN625 manhole for precise height adjustments

- They are produced by vibro-pressing from high quality concrete C35/45 (MB 45).
- Due to their height of 6 cm, it is used for height adjustments to the ground level, when the element of smaller height is needed.
- It is installed on the cone elements, and in this case, a cast-iron cover is placed on the construction site.
- It is possible to put three such rings on one another (achieving the required height of 6, 12 or 18 cm).

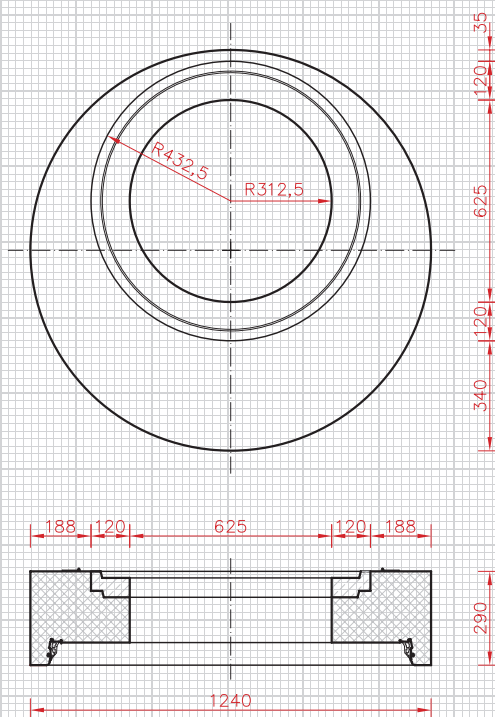
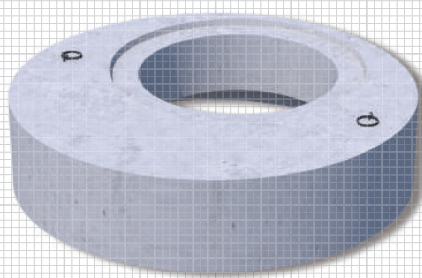


TECHNICAL CHARACTERISTICS

TYPE	diameter (ømm)	wall thickness (mm)	height (mm)	weight (kg)
BPPŠ 1	625	120	60	40

Reinforced concrete final plate DN 1240/625 with integrated rubber seal for heavy traffic

- It is made of high quality SCC concrete C35/45 (MB 45) – self-compacting concrete.
- It is commonly used when smaller heights of manholes are needed, because then the end plate is placed directly on the base of the manhole.
- It is placed on the rings of manhole.
- The cast-iron covers are placed on the end plate on the construction site.



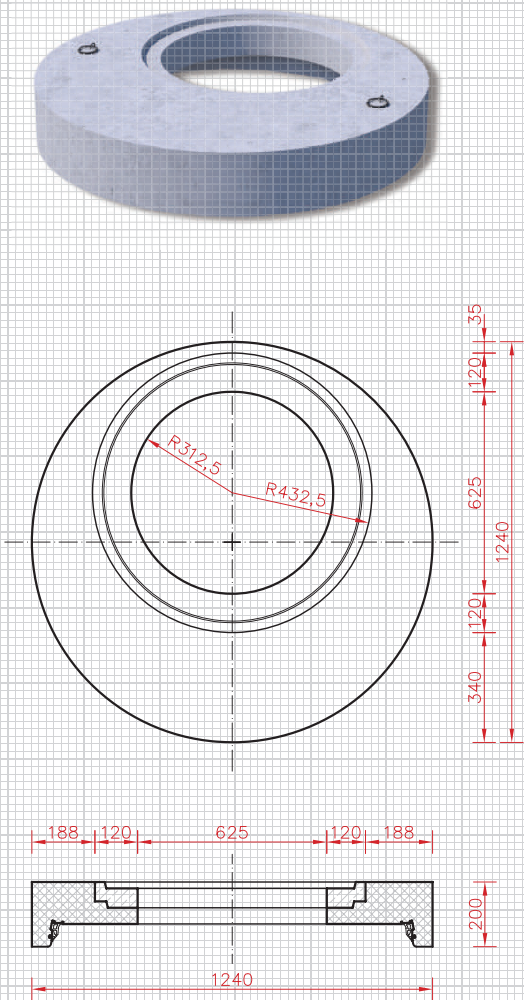
TECHNICAL CHARACTERISTICS

dimensions (mm)	height (mm)	weight (kg)
DN 1240/625	290	520



Reinforced concrete end plate DN 1240/625 with integrated rubber seal for light traffic

- It is made of high quality SCC concrete C35 / 45 (MB 45) –self compacting concrete.
- It is commonly used when smaller heights of manholes are needed, because then the end plateis placed directly on the base of the manhole.
- It is placed on the rings of manhole.
- A cast-iron covers are placed on the end plate on the construction site.

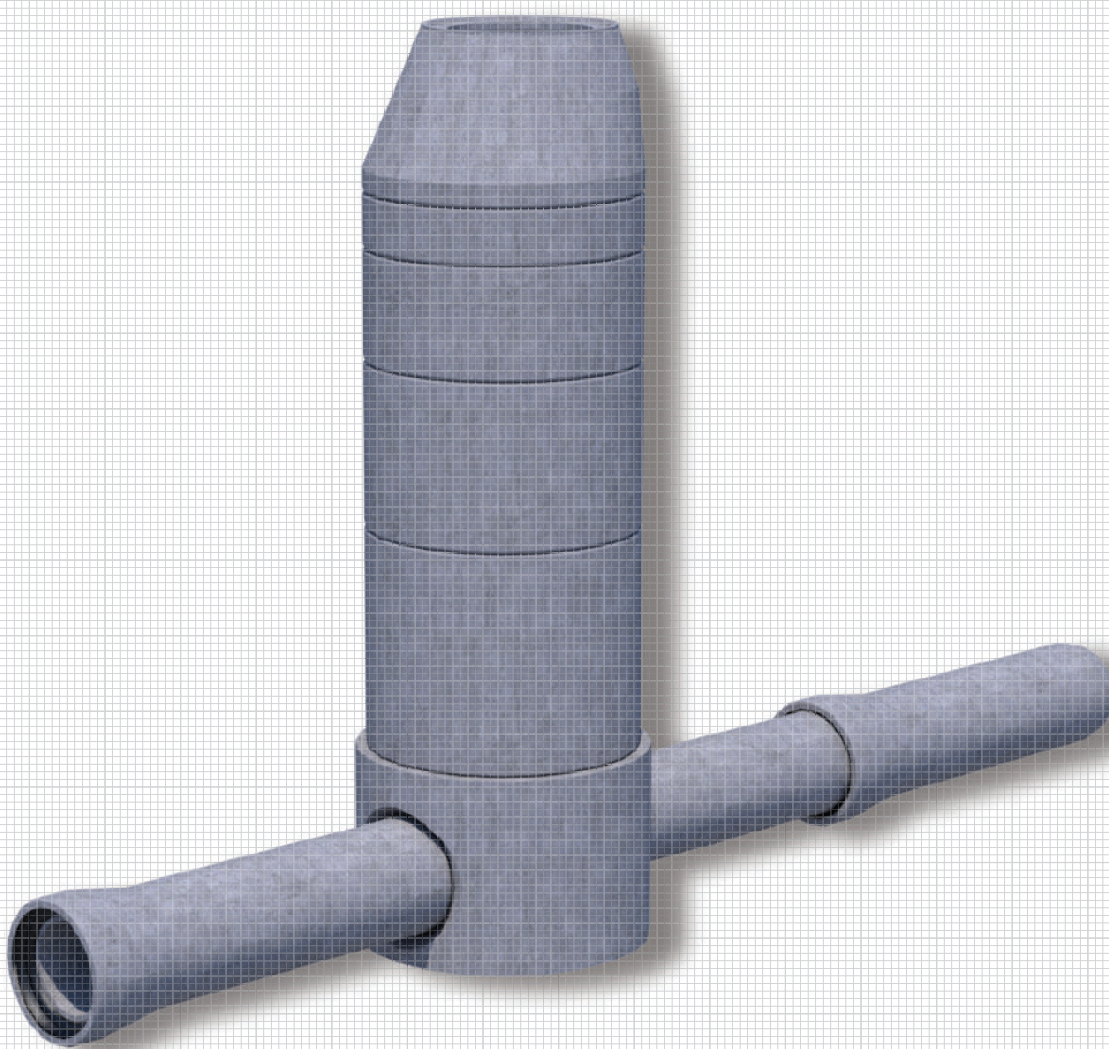


TECHNICAL CHARACTERISTICS

dimensions (mm)	height (mm)	weight (kg)
DN 1240/625	200	385

3D model of DN 1000 concrete manhole

with integrated rubber seals
with concrete pipeline



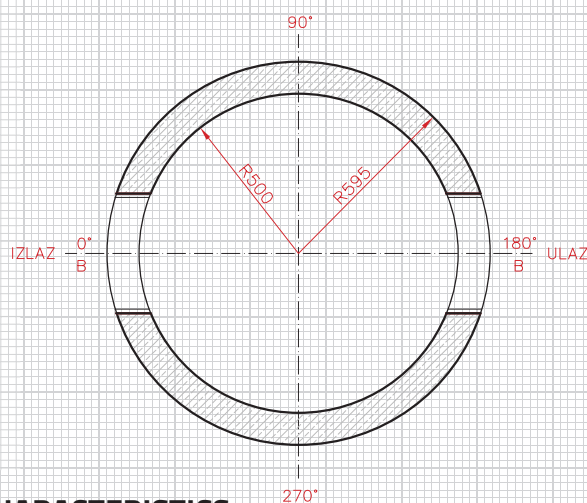
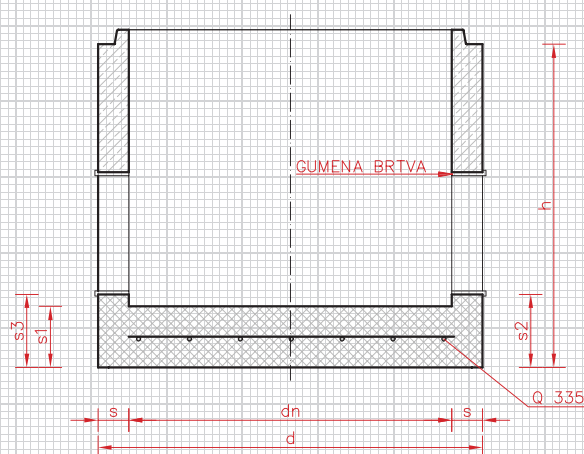
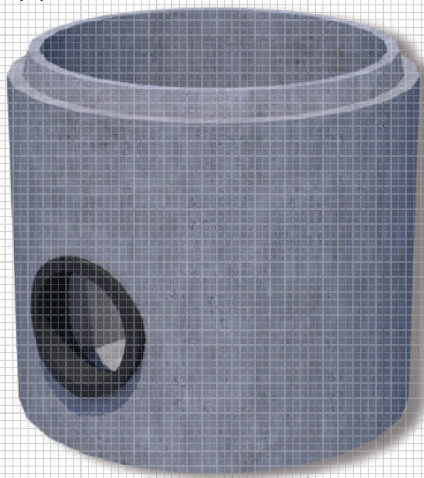
3D model of DN 1000 concrete manhole with integrated rubber seals with plastic pipeline



DN1000 concrete manhole with additional rubber seals

Concrete bases of DN1000 manhole with additional rubber seals for plastic pipelines

- They fulfill the requirements of the BAS U.N1.050 standard.
- They are produced by vibro-pressing from high-quality concrete C35 / 45 (MB 45).
- Fast and easy installation.
- The openings and angles of the input/output are formed according to the requests of the project, after the full base is subsequently produced (forming of opening with diamond crowns).
- Rubber elastic seals in the base of manhole (pipe and manhole connections – inlet and outlet) will be subsequently installed at the site and they are delivered for GRP polyester pipe, PVC and PEHD pipelines.

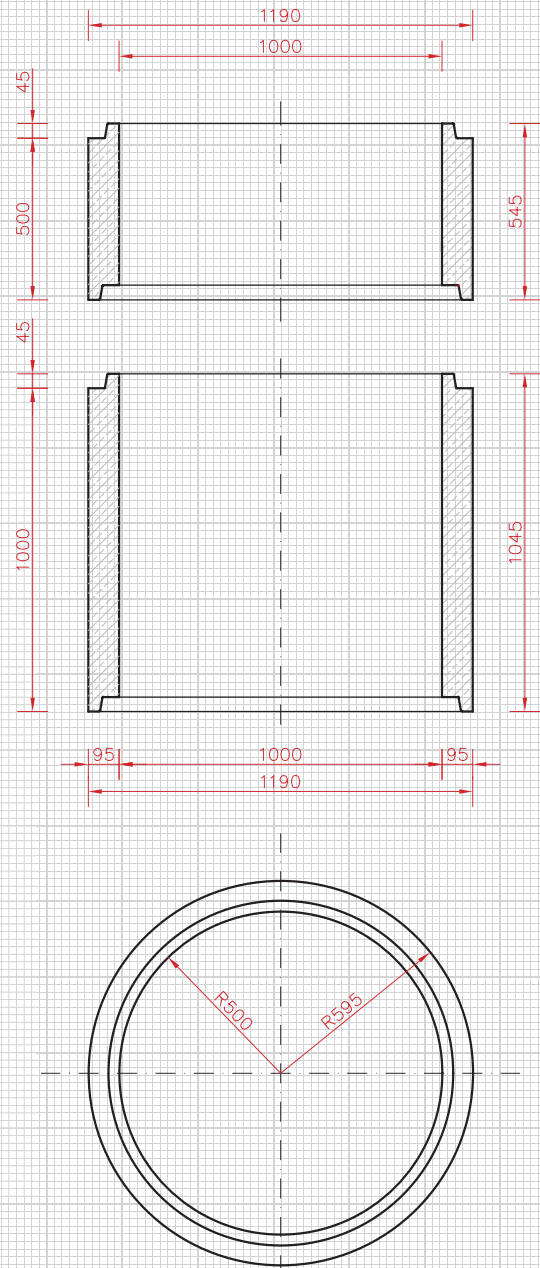
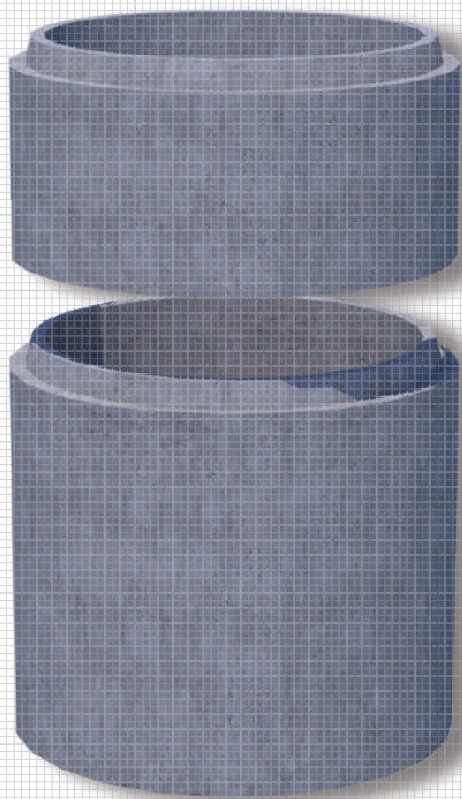


TECHNICAL CHARACTERISTICS

TYPE	diameter		wall thickness		inlet/outlet height			height	input/output height	weight
	dn (ømm)	d (ømm)	s (mm)	s1 (mm)	s2 (mm)	s3 (mm)	h (mm)		ømm	kg
BBŠ 10	1000	1190	95	150	210	200	1000		150-400	1070
BBŠ 12	1000	1190	95	150	210	200	500		150-250	680

Concrete rings of DN1000 manhole with additional rubber seal

- They fulfill the requirements of BAS U.N1.050 standard.
- They are produced by vibro-pressing from high-quality concrete C35 / 45 (MB 45).
- Fast and easy installation.
- They are used to achieve the designed height of the inspection chamber.
- The mutual connections of the rings or base and ring are realized by the additional rubber elastic seals.

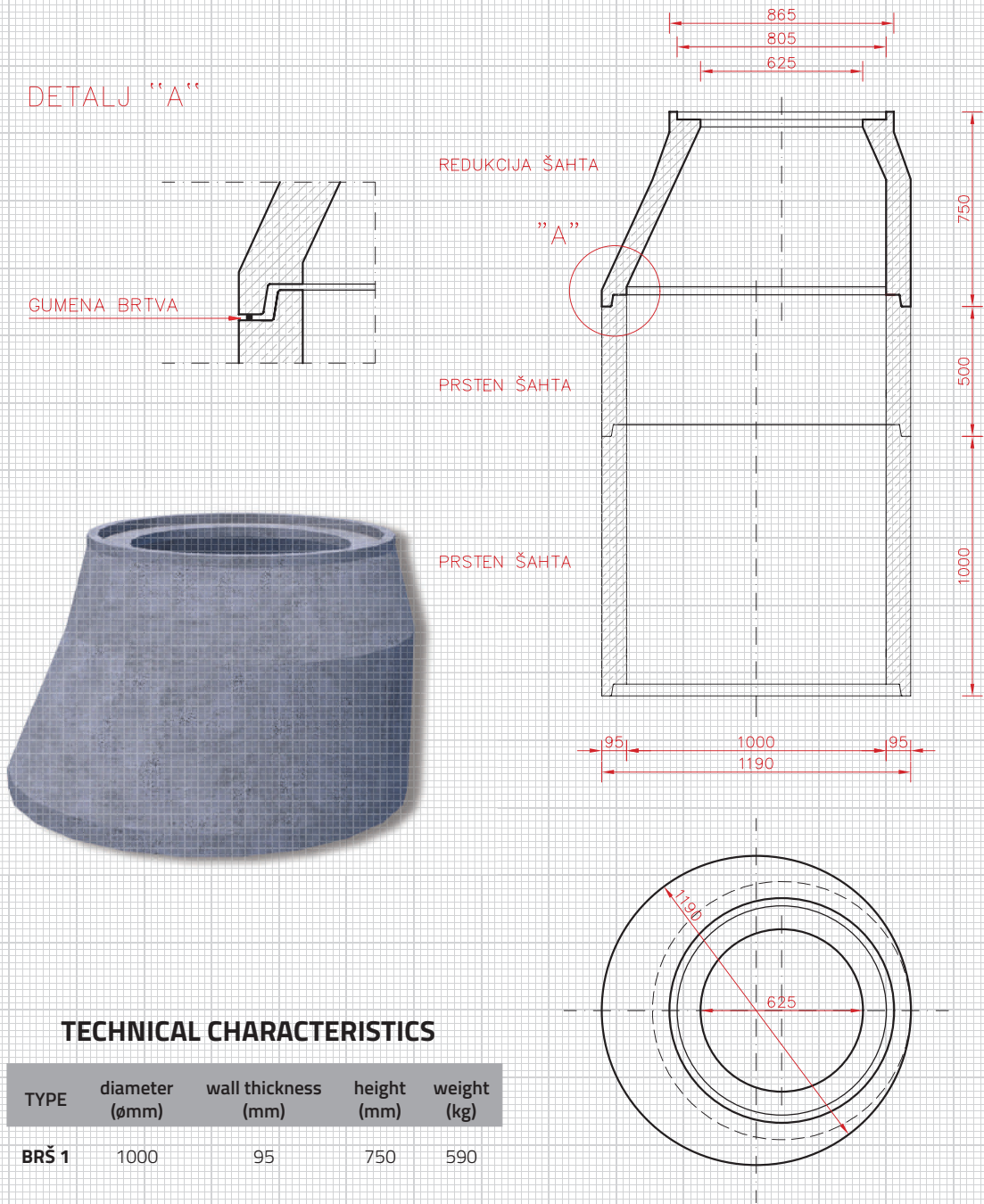


TECHNICAL CHARACTERISTICS

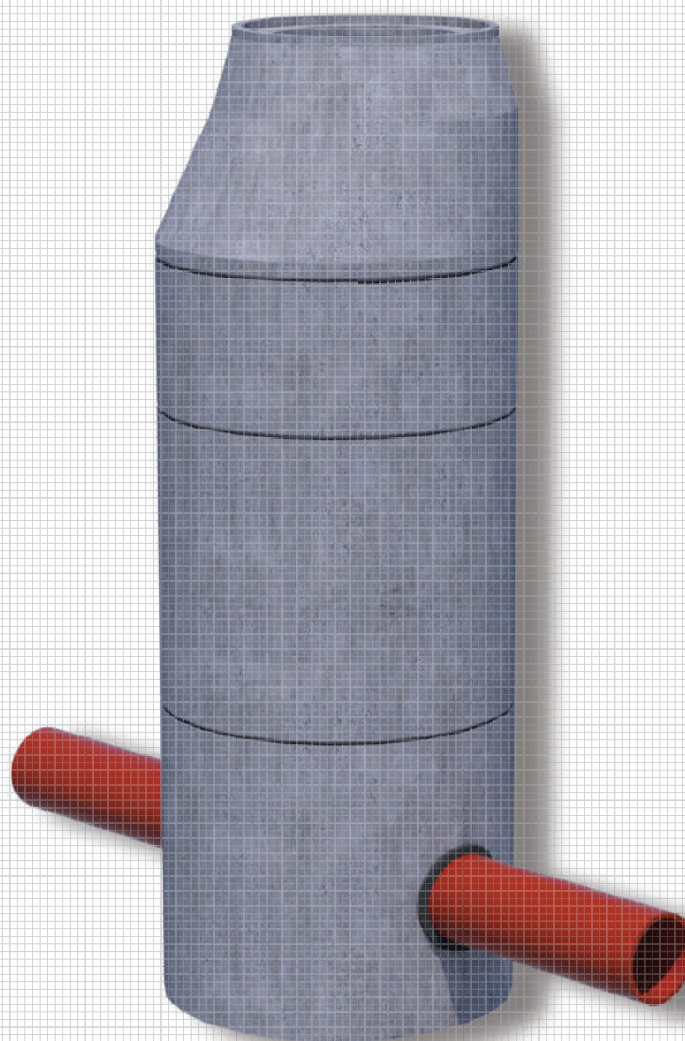
TYPE	diameter (ømm)	wall thickness (mm)	height (mm)	pressure (kN/m²)	weight (kg)
BPŠ 1	1000	95	500	74	395
BPŠ 2	1000	95	1000	74	790

Concrete reduction of DN1000/625 manhole with additional rubber seal

- It fulfills the requirements of BAS U.N1.050 standard.
- It is produced by vibro-pressing from high-quality concrete C35/45 (MB 45).
- Fast and easy installation.
- They are used for the completion of the inspection chamber.
- The mutual connections of the ring and reduction or base and reduction are realized by the additional rubber elastic seals.



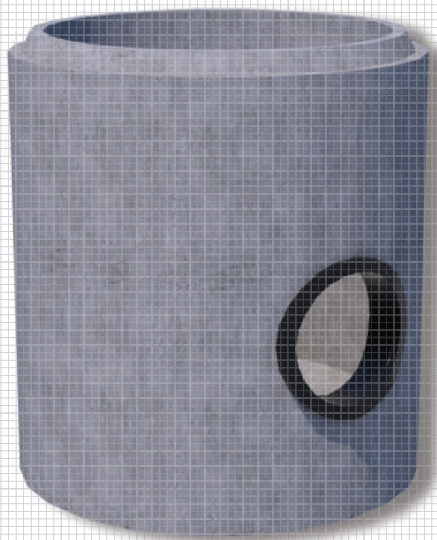
3D model of DN 1000 concrete manhole with additional rubber seals with plastic pipeline

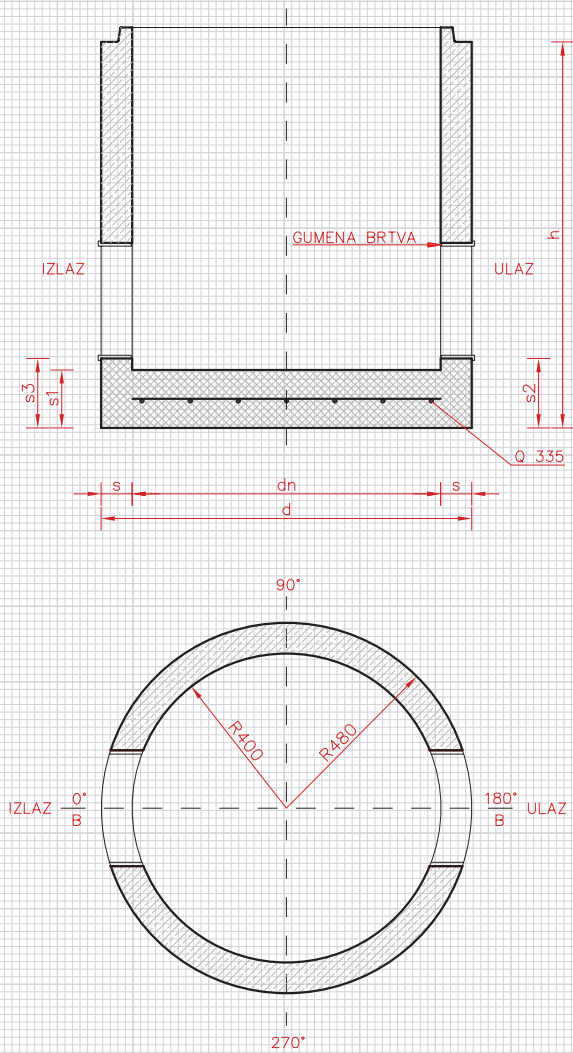


DN 800 concrete manholes with additional rubber seals

Concrete bases of DN 800 manhole with additional rubber seals for plastic pipelines

- They meet the requirements of BAS U.N1.050 standard.
- They are produced by vibro-pressing of high quality concrete C35/45 (MB 45).
- Fast and easy installation.
- The openings and angles of the input/output are formed according to the requests of the project, after the full base is subsequently produced (forming of opening with diamond crowns).
- Rubber elastic seals in the base of manhole (piping and manhole connections – inlet and outlet) will be subsequently installed at the site.



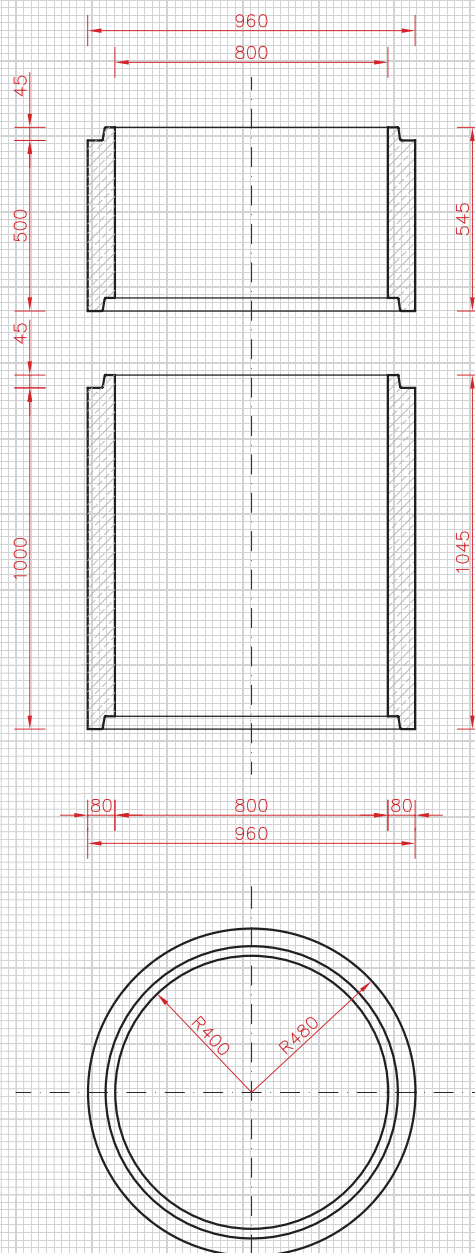
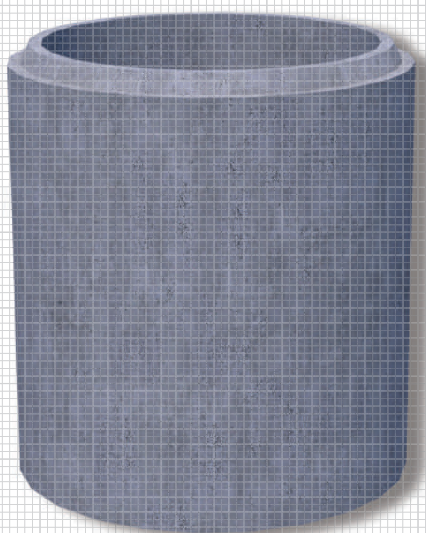
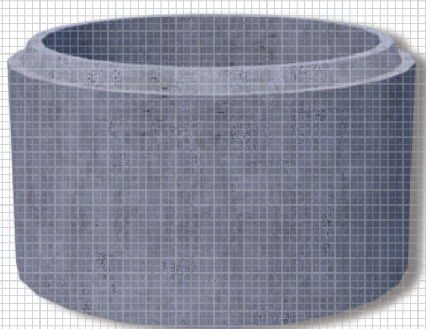


TECHNICAL CHARACTERISTICS

TYPE	diameter		wall thickness		inlet/outlet height		height	input/ output height	weight
	dn (ømm)	d (ømm)	s (mm)	s1 (mm)	s2 (mm)	s3 (mm)	h (mm)	ømm	kg
BBŠ 11	800	960	80	150	210	200	1000	150-400	710
BBŠ 13	800	960	80	150	210	200	500	150-250	445

Concrete rings of DN 800 manhole with additional rubber seals

- They meet the requirements of BAS U.N1.050 standard.
- They are produced by vibro-pressing from high-quality concrete C35/45 (MB 45).
- Fast and easy installation.
- They are used to achieve the designed height of the inspection chamber.
- The mutual connections of the ring or base and ring are realized by the additional rubber elastic seals.

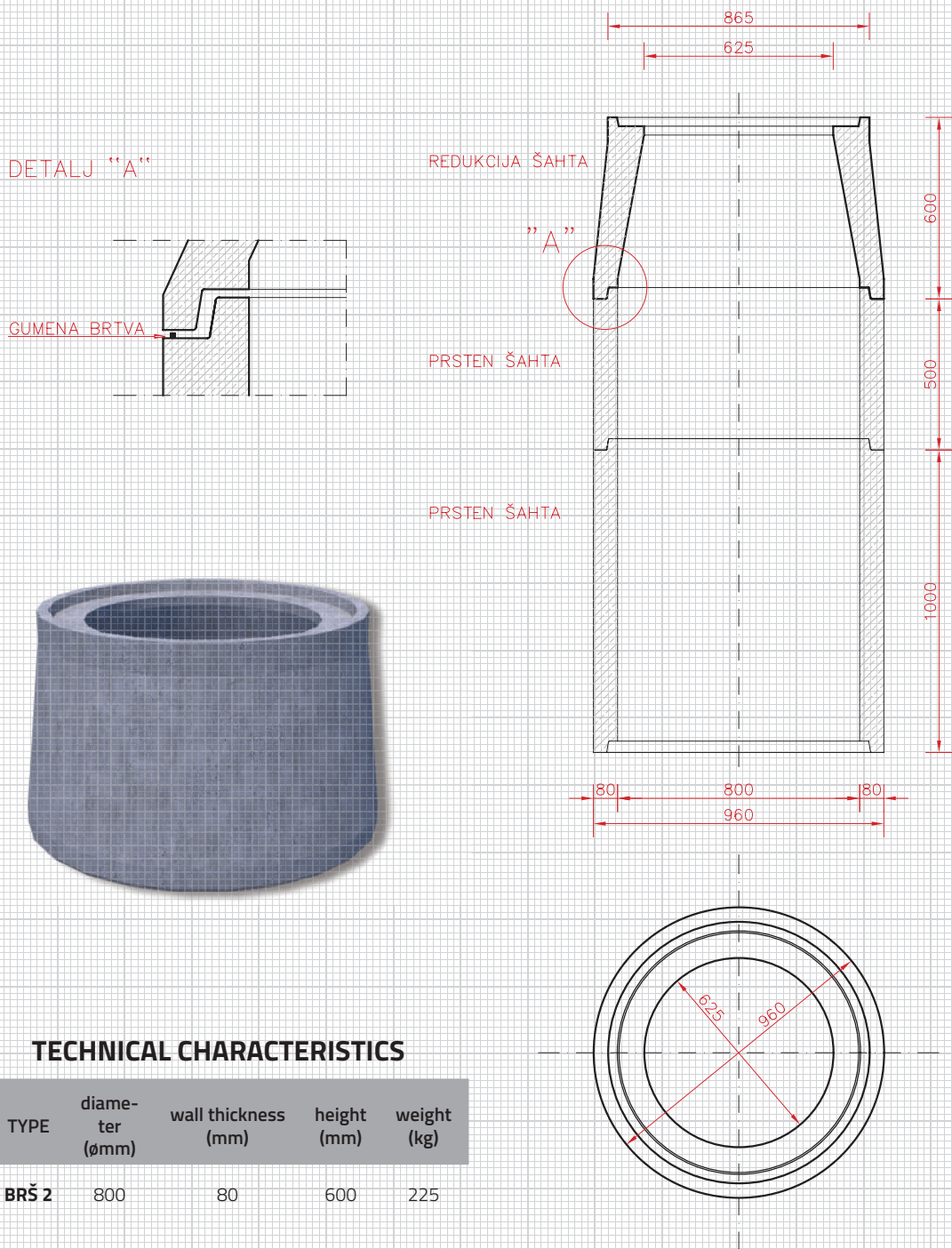


TECHNICAL CHARACTERISTICS

TYPE	diameter (ømm)	wall thickness (mm)	height (mm)	pressure (kN/m ²)	weight (kg)
BPŠ 3	800	80	500	54	265
BPŠ 4	800	80	1000	54	530

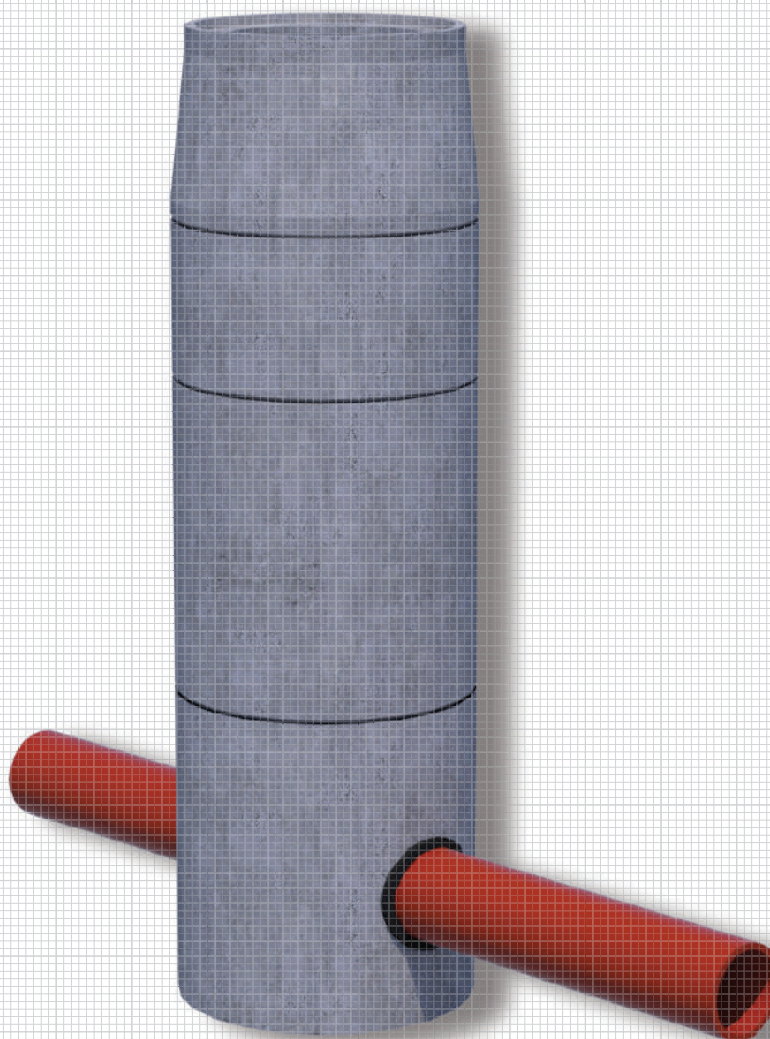
Concrete reduction of DN800/625 manhole with additional rubber seal

- They meet the requirements of BAS U.N1.050 standard.
- They are produced by vibro-pressing from high-quality concrete C35/45 (MB 45).
- Fast and easy installation.
- They are used as the end plate of the inspection chamber.
- The mutual connections of the ring and reduction or base and reduction are realized by the additional rubber elastic seals.



3D model of concrete DN 800 manhole

with additional rubber seals
with plastic pipeline

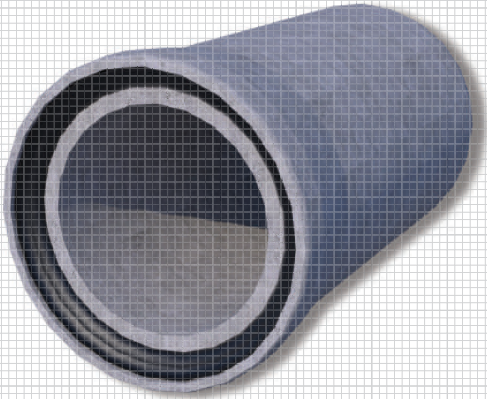


Concrete pipes

Concrete pipes with integrated rubber seal of length of 2000 mm

They are produced by vibro-pressing of high quality concrete C35/45 (MB 45) and they fulfill prescribed standards: shape; measures; appearance; testing pressure resistance; watertightness. They fulfill the requirements of the BAS EN 1916 and BAS EN 1610 standards.

The integrated rubber elastic seal provides the complete watertightness of joint.

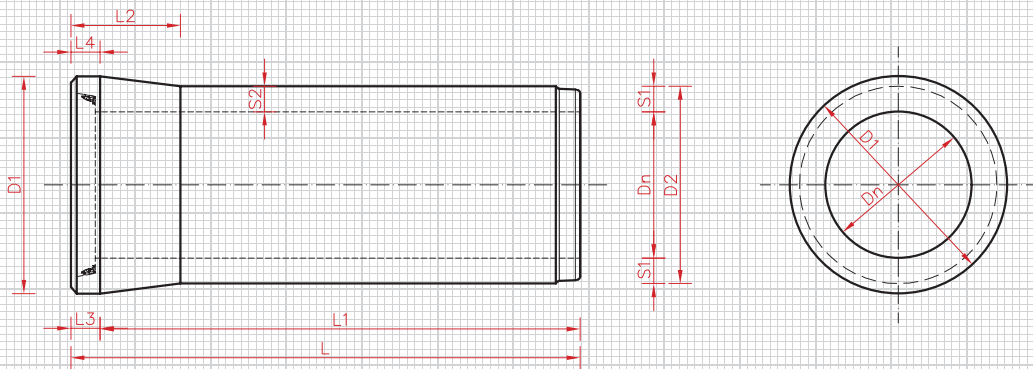


Installation procedure:

- The base must be made with aggregate of granulation $D_{max}=32$ mm, and in the case of a higher loading, a larger inclination of the trench and the danger of sand rinsing, a concrete base is constructed.
- The reinforced concrete pipe is laid on a sand or gravel subgrade as to fully fit along its entire length, and then the gravel lining is made.
- Earth subgrade (embankment) is the finishing layer which must be well compacted to the compaction of surrounding undisturbed soil.

Note:

DN 1000 and DN 1200 can be used as reinforced concrete



TECHNICAL CHARACTERISTICS

Dn (ømm)	L1 (mm)	L (mm)	D1 (mm)	D2 (mm)	S1 (mm)	S2 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	weight (kg/pie.)	press. (kN/m)
300	2000	2080	500	402	51	57	350	80	110	380	55
400	2000	2090	630	530	65	70	450	90	110	530	62
500	2000	2090	760	670	85	90	450	90	120	860	85
600	2000	2090	892	800	100	105	450	90	120	1180	110
800	2000	2100	1150	1060	130	135	450	100	140	2100	130
1000	2000	2120	1430	1320	160	165	450	120	140	3140	150
1200	2000	2120	1720	1580	190	195	450	120	140	4380	180

Reinforced concrete pipes with integrated rubber seal of length of 2000 mm

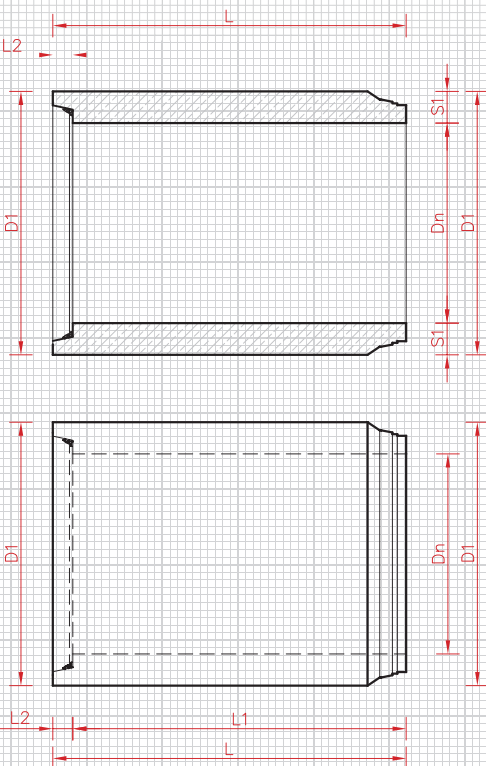
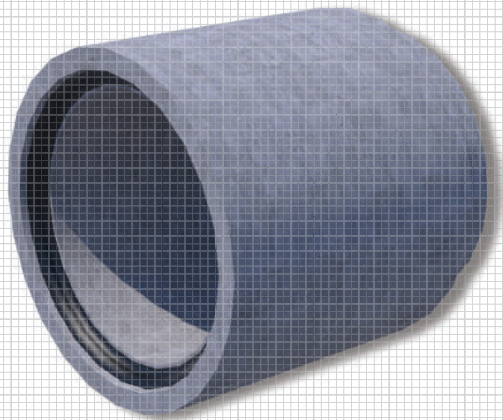
Reinforced concrete pipes of diameter DN 1500 and DN 1600 are produced by vibro-pressing from high quality concrete C35/45 (MB 45) and they fulfill the prescribed standards: shape; measures; appearance; testing pressure resistance; watertightness. Reinforced concrete pipes of diameter DN 2000 are produced from high quality SCC concrete C35/45 (MB 45) – self-compacting concrete and they fulfill the prescribed standards: shape; measures; appearance; testing pressure resistance; watertightness.

They fulfill the requirements of BAS EN1916 and BAS EN 1610 standards.

Complete watertightness of the joint enables integrated rubber elastic seal in the tongue and groove system.

Installation procedure:

- The base must be made with aggregate of granulation $D_{max}=32$ mm, and in the case of a higher loading, a larger inclination of the trench and the danger of sand rinsing, a concrete base is constructed.
- The reinforced concrete pipe is laid on a sand or gravel subgrade as to fully fit along its entire length, and then the gravel lining is made.
- Earth subgrade (embankment) is the finishing layer which must be well compacted to the compaction of surrounding undisturbed soil.



TECHNICAL CHARACTERISTICS

Dn (ømm)	L1 (mm)	L (mm)	D1 (mm)	S1 (mm)	L2 (mm)	weight (kg/piece)	pressure (kN/m)
1500	2000	2130	1970	237	130	6060	245
1600	2000	2145	2100	252	145	7000	298
							170
							340
2000	2000	2145	2420	210	145	7000	455
							650
							770

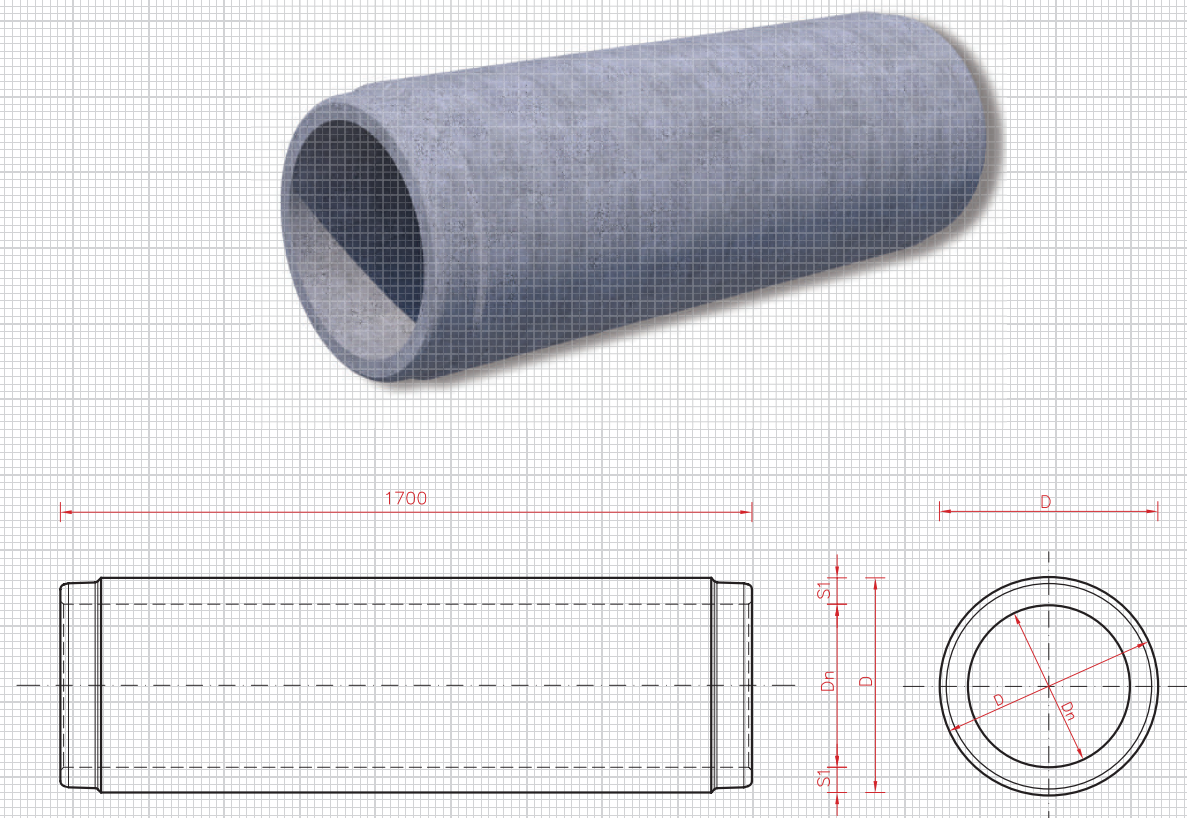


Concrete connection pipes of length of 1700 mm

They are produced by vibro-pressing of high quality concrete C35/45 (MB 45). They fulfill the requirements of BAS EN 1916 and BAS EN 1610 standards.

They are used for connecting of output channel of the control shaft with the sewage channel, in concrete pipelines. Therefore, for each manhole, one outlet pipe of the corresponding diameter is required.

They guarantee a completely watertight sewage system.



TECHNICAL CHARACTERISTICS

TYPE	diameter		wall thickness	length	weight
	DN (ømm)	D (ømm)	S1 (mm)	mm	kg
BPC 1	300	402	51	1700	290
BPC 2	400	530	65	1700	404
BPC 3	500	630	85	1700	648
BPC 4	600	800	100	1700	915
BPC 5	800	1060	130	1700	1570

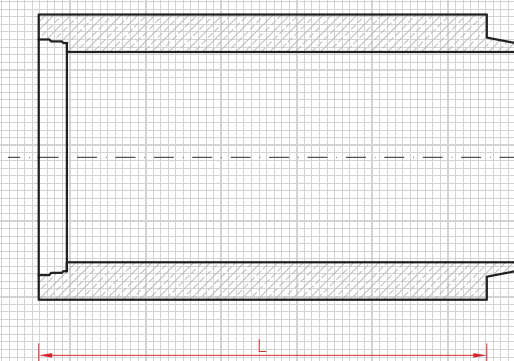
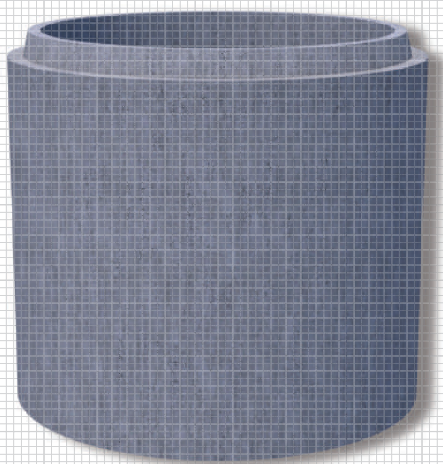
Concrete pipes of length of 1000mm and 500mm

They are made of high quality concrete C35/45 (MB 45) and they fulfill the prescribed standards: shape; measures; appearance; testing pressure resistance; watertightness.

They fulfill the requirements of BAS U.N1.050; BAS U.N1.053 and BAS U.N1.054 standards.

Installation procedure:

- The base must be made of gravel of granulation $D_{max} = 32$ mm and in the case of a higher loading, a stronger inclination of the trench, a risk of sand rinsing, a concrete base is made.
- The reinforced concrete pipe is laid on a sand or gravel subgrade as to fully fit along its entire length, and then the gravelling is made.
- Earth subgrade (embankment) is the finishing layer which must be well compacted to the compaction of surrounding undisturbed soil.

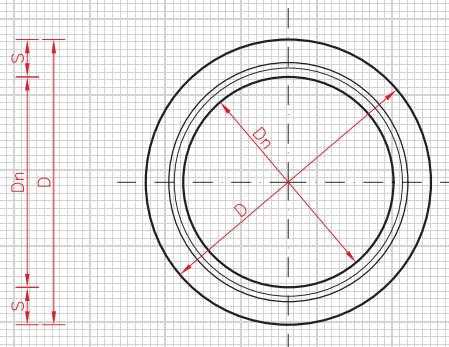


TECHNICAL CHARACTERISTICS L 500 mm

diameter Dn (ømm)	L (mm)	D (mm)	S (mm)	weight (kg/pie.)	pres- sure kN/m
150	500	198	24	16	32
200	500	252	26	22	34
300	500	380	40	51	38
400	500	490	45	75	40
500	500	600	50	120	42
600	500	720	60	145	44
800	500	960	80	265	54
1000	500	1190	95	395	74

TECHNICAL CHARACTERISTICS L 1000 mm

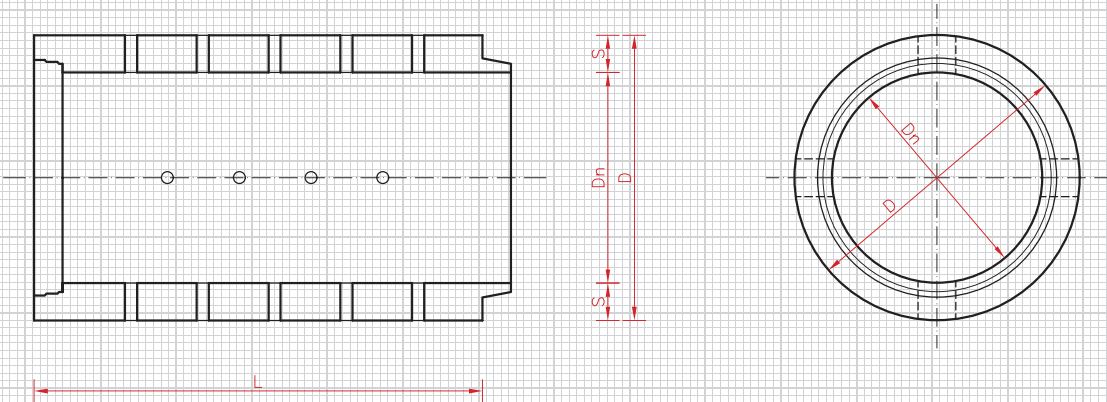
diameter Dn (ømm)	L (mm)	D (mm)	S (mm)	weight (kg/pie.)	pres- sure kN/m
150	1000	198	24	32	32
200	1000	252	26	44	34
300	1000	380	40	102	38
400	1000	490	45	150	40
500	1000	600	50	240	42
600	1000	720	60	290	44
800	1000	960	80	530	54
1000	1000	1190	95	790	74





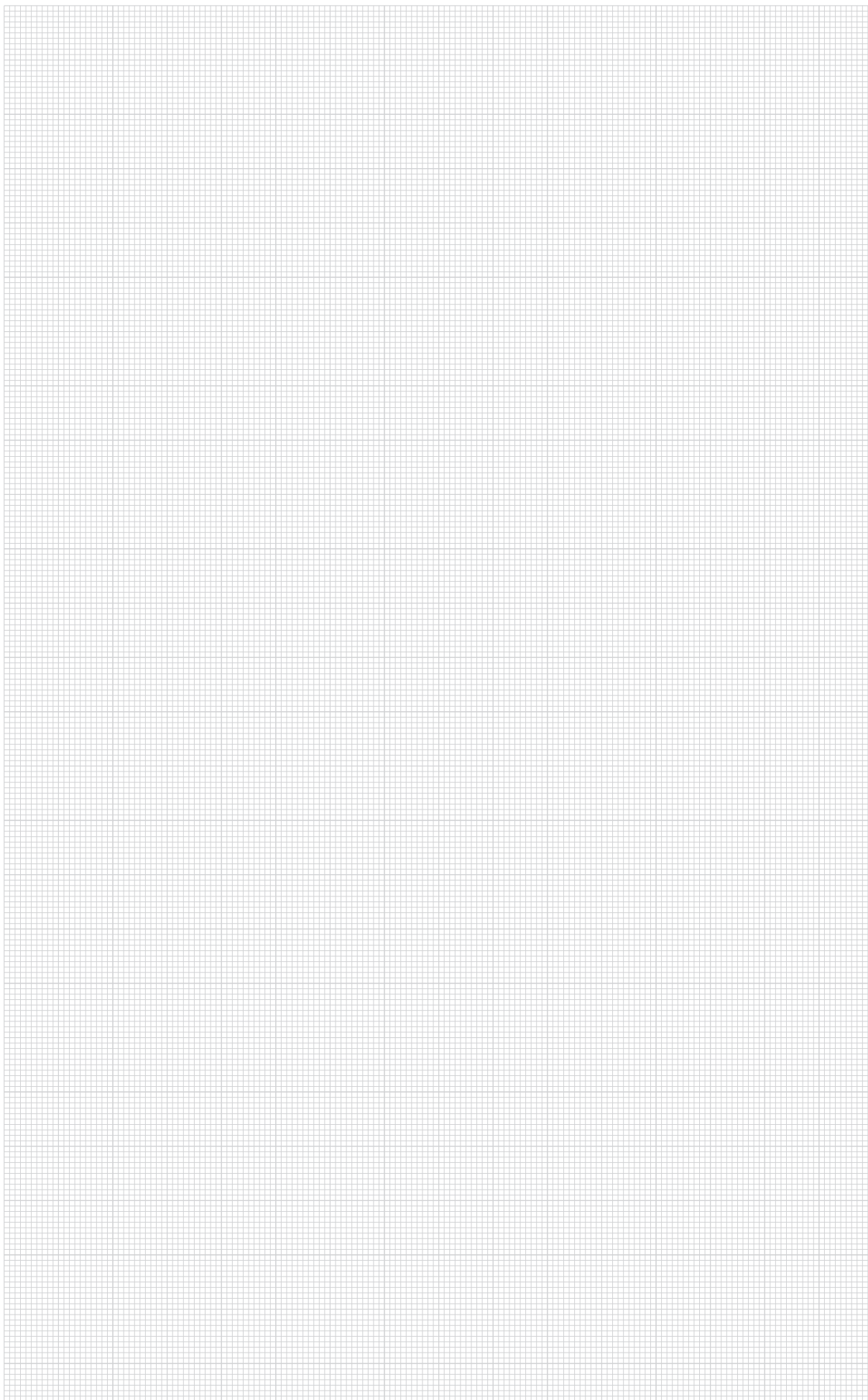
Concrete drainage pipes of length of 1000 mm

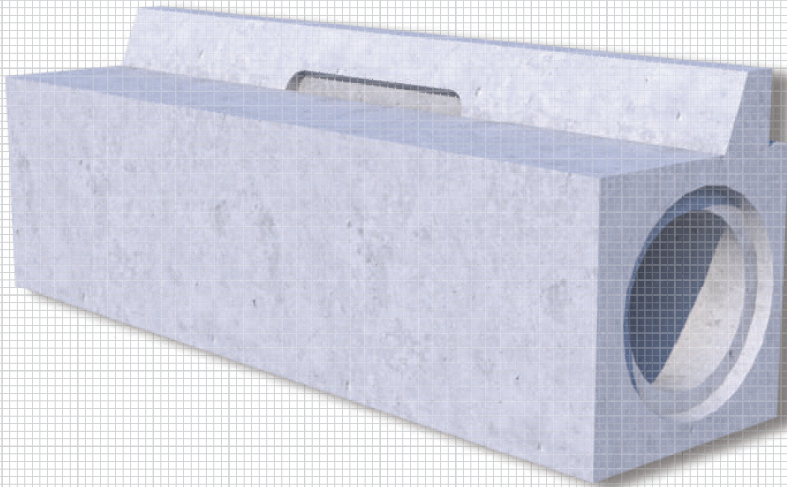
DDrainage pipes are produced according to the BAS U.N1.050 standard with additional processing, i.e. the openings on the pipes which serve for drainage are formed by wall drilling.



TECHNICAL CHARACTERISTICS

diameter Dn (ømm)	L (mm)	D (mm)	S (mm)	weight (kg/piece)	pressure kN/m
150	1000	198	24	32	32
200	1000	252	26	44	34
300	1000	380	40	102	38
400	1000	490	45	150	40
500	1000	600	50	240	42
600	1000	720	60	290	44
800	1000	960	80	530	54
1000	1000	1190	95	790	74

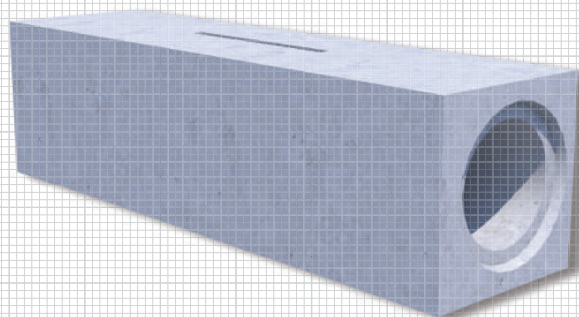




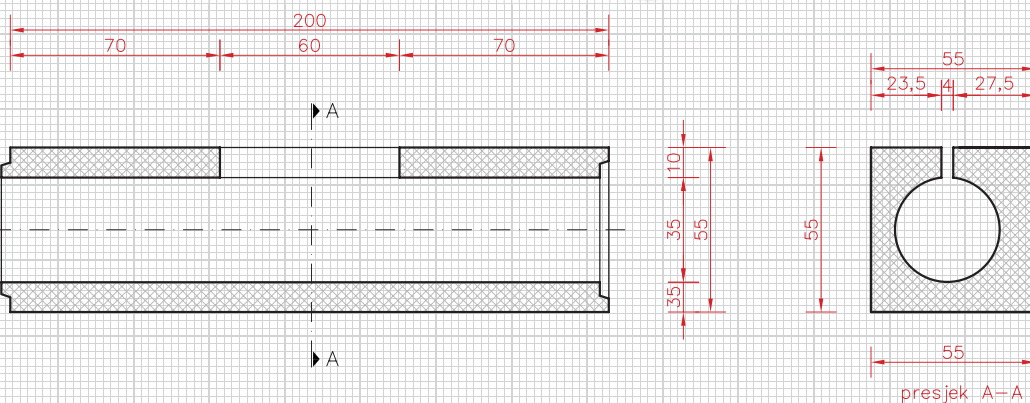
Reinforced concrete slot pipes

- Reinforced concrete slot pipe is used for control and drainage of precipitations, less aggressive water from traffic surfaces.
- Precast drainage channel with a closed circular or semicircular profile that has continuous or occasional openings for drainage of surface water are made of self-compacting concrete–SCC concrete, class C 35/45, exposure classes XC4, XD3, XF4, XA2.
- They provide a fully watertight drainage system – a connection with a permanently elastic kit.
- They are produced according to the requirements of BAS EN 1433 standard.

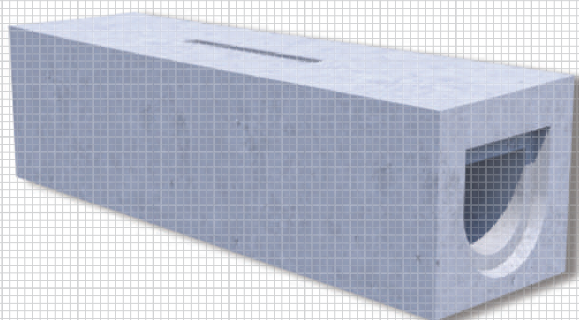
TYP 1



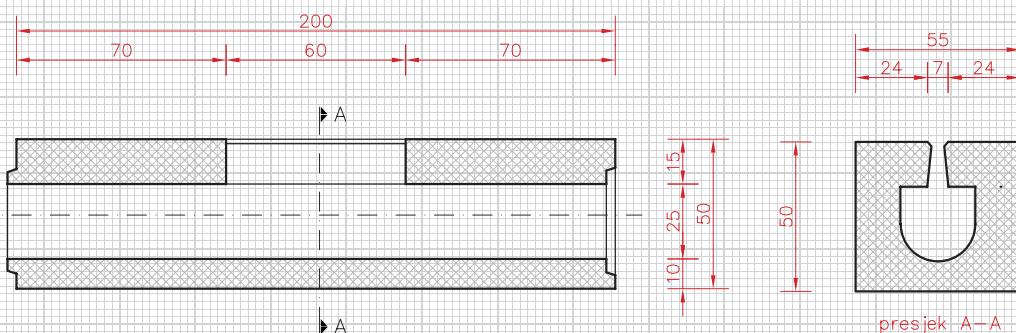
- Weight:
- 1053 kg



TYP 2

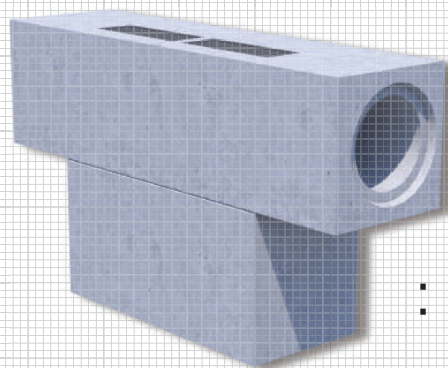


- Weight:
- 1069 kg



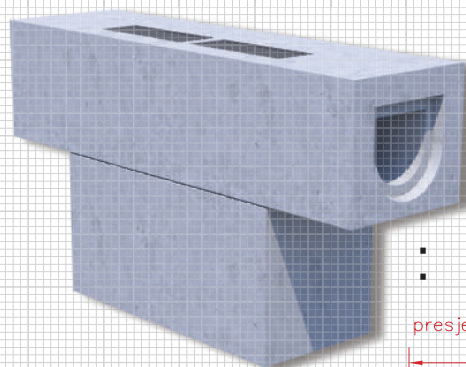
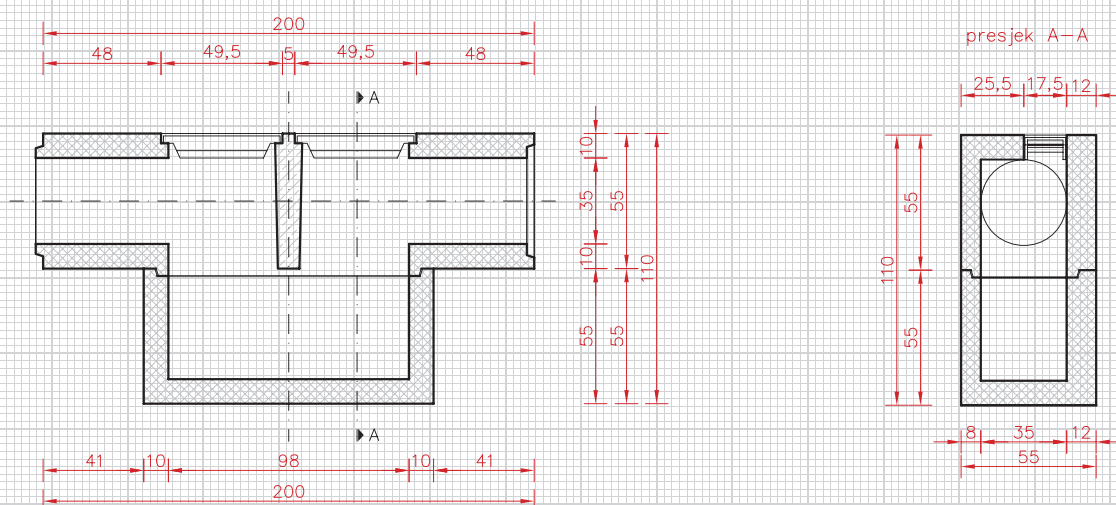
Reinforced concrete inspection chamber

- Reinforced concrete inspection chamber is used for control and drainage of precipitations, less aggressive water from traffic surfaces.
- Precast drainage channel with a closed circular or semicircular profile that has continuous or occasional openings for drainage of surface water are made of self-compacting concrete – SCC concrete, class C 35/45, exposure classes XC4, XD3, XF4, XA2.



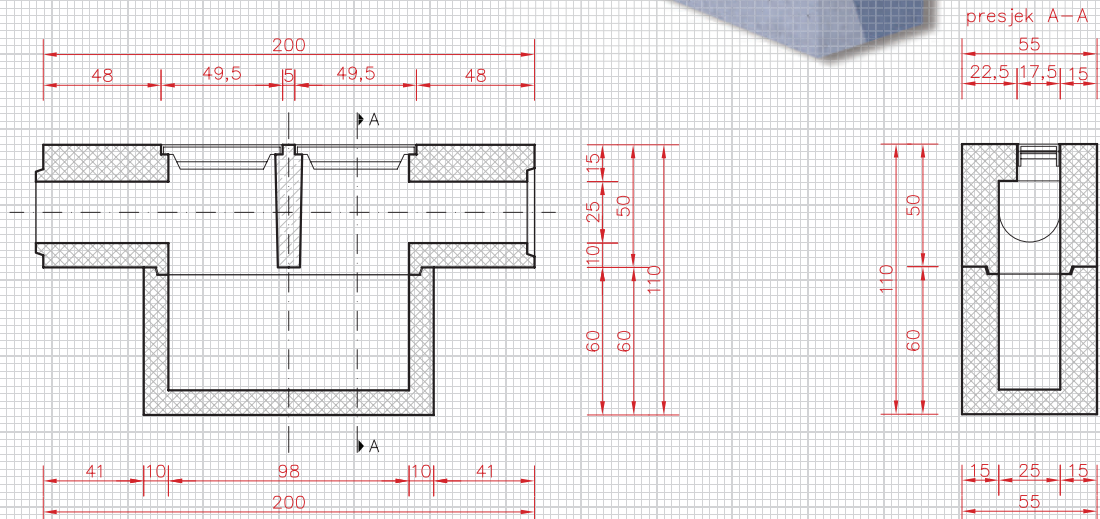
TYP 1

- Weight:
- 1402 kg



TYP 2

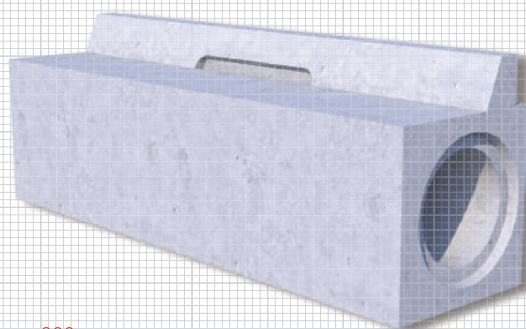
- It provides a fully watertight drainage system – a connection with a permanently elastic kit.
- It is produced according to the requirements of BAS EN 1433 standard.



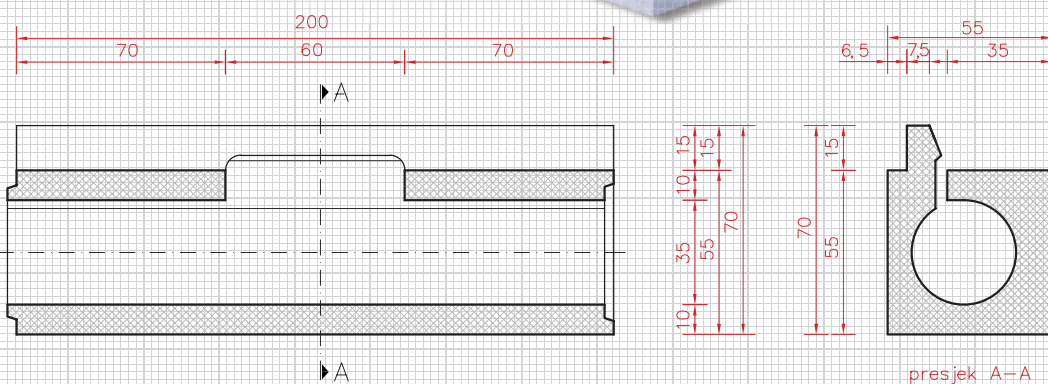
Reinforced concrete slot pipes with integrated curb

- Reinforced concrete slot pipe is used for control and drainage of precipitations, less aggressive water from traffic surfaces.
- Precast drainage channel with a closed circular or semicircular profile that has continuous or occasional openings for drainage of surface water are made of self-compacting concrete–SCC concrete, class C 35/45, exposure classes XC4, XD3, XF4, XA2.
- They provide a fully watertight drainage system – a connection with a permanently elastic kit.
- They are produced according to the requirements of BAS EN 1433 standard.

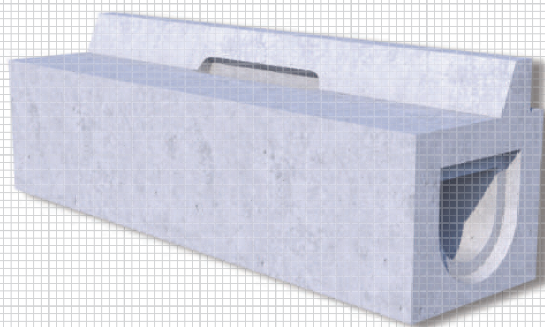
TYP 1



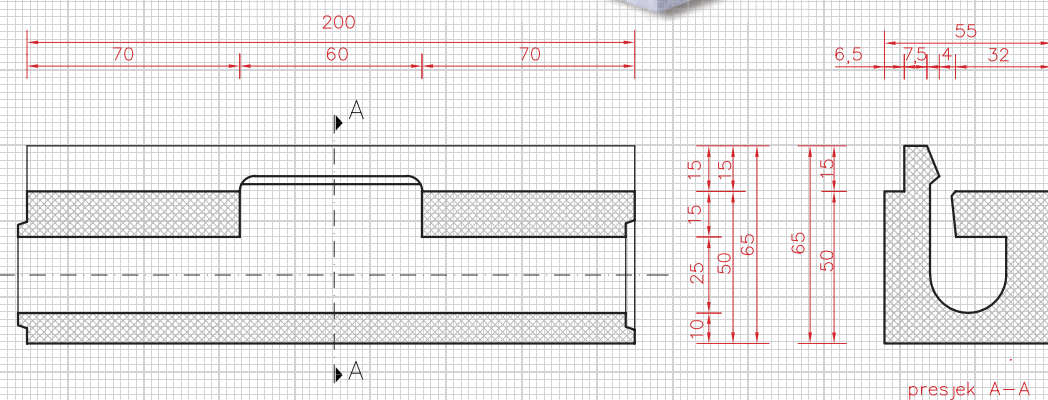
- Weight:
- 1085 kg



TYP 2

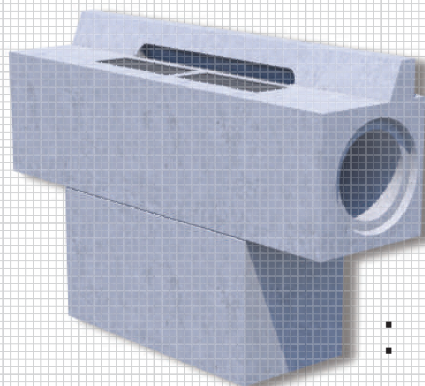


- weight:
- 1140 kg



Reinforced concrete inspection chamber with integrated curb

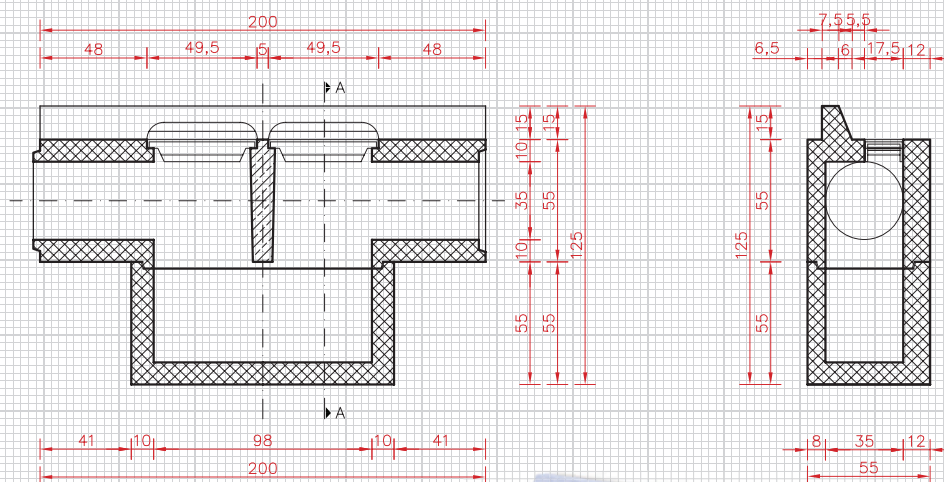
- Reinforced concrete inspection chamber is used for control and drainage of precipitations, less aggressive water from traffic surfaces.
- Precast drainage channel with a closed circular or semicircular profile that has continuous or occasional openings for drainage of surface water are made of self-compacting concrete – SCC concrete, class C 35/45, exposure classes XC4, XD3, XF4, XA2.



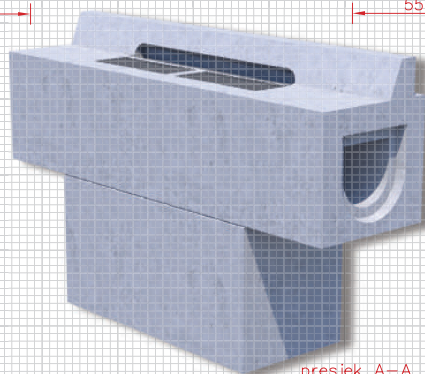
TYP 1

- Weight:
- 1636 kg

presjek A-A



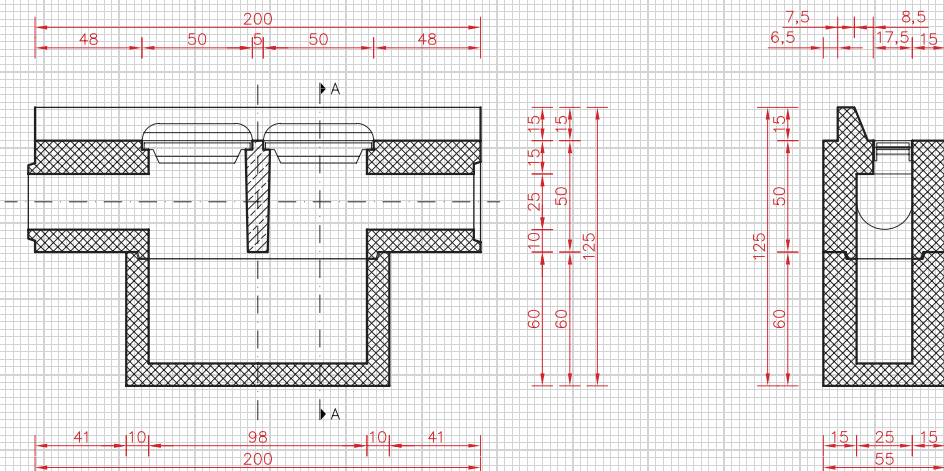
- It provides a fully watertight drainage system – a connection with a permanently elastic kit.
- It is produced according to the requirements of BAS EN 1433 standard.



TYP 2

- Weight:
- 1568 kg

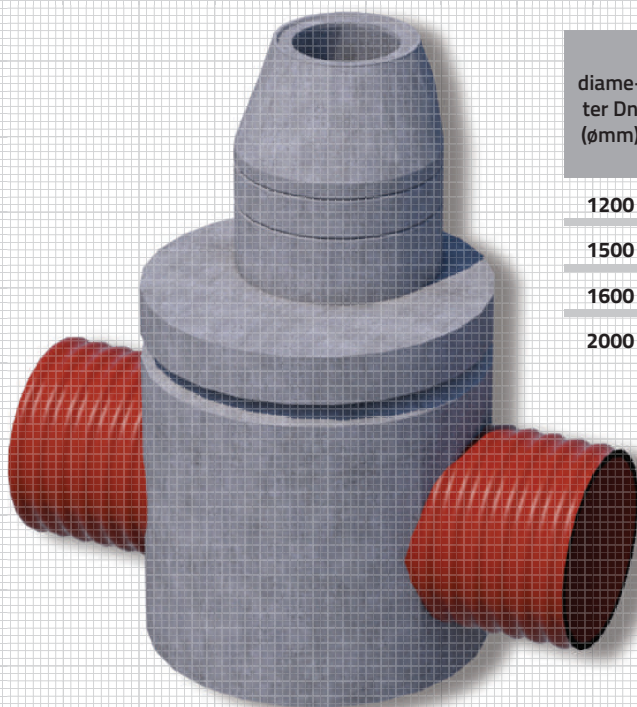
presjek A-A



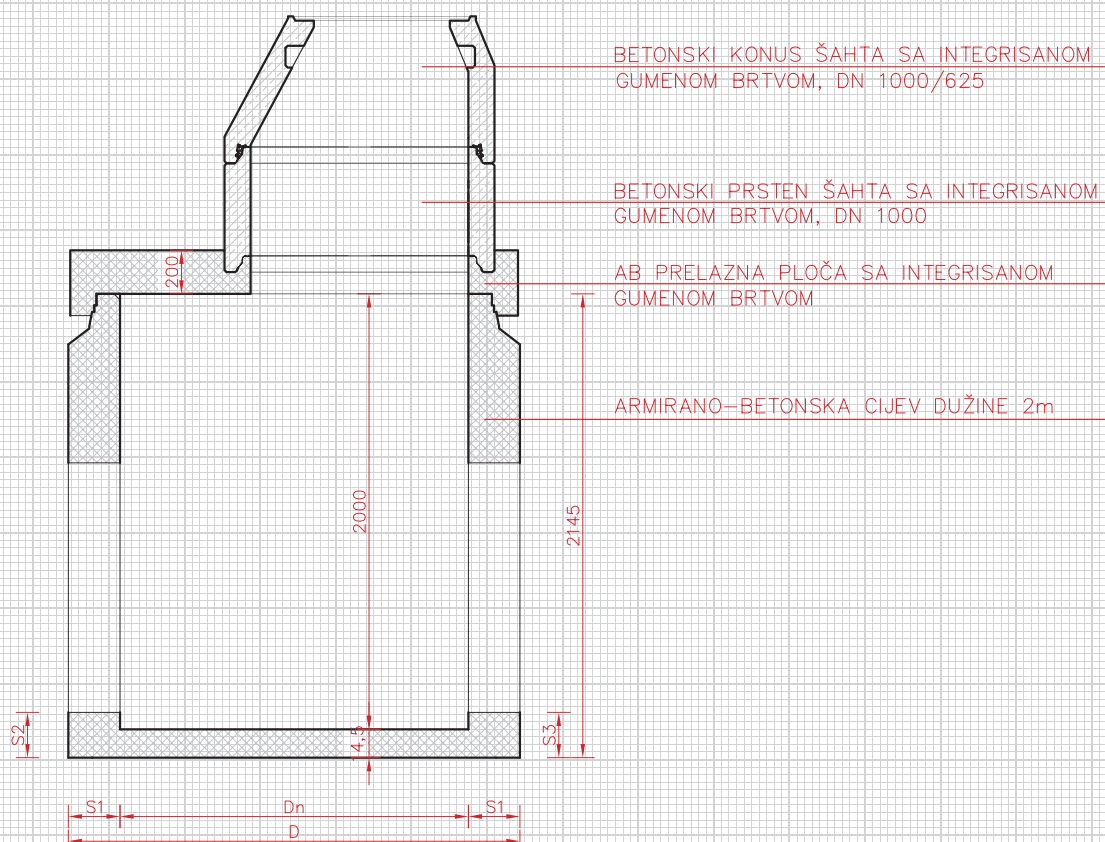
Reinforced concrete manhole DN 1200, DN 1500 DN 1600, DN 2000 with integrated elastic joints for vertical extensions

TECHNICAL CHARACTERISTICS

diameter Dn (ømm)	diameter D (ømm)	wall thickness S1(mm)	inlet/outlet height min S3(mm)	inlet/outlet height min S2(mm)	input/output (ømm)
1200	1580	190	210	200	150-800
1500	1970	237	210	200	150-1200
1600	2100	252	210	200	150-1200
2000	2420	210	210	200	150-1200



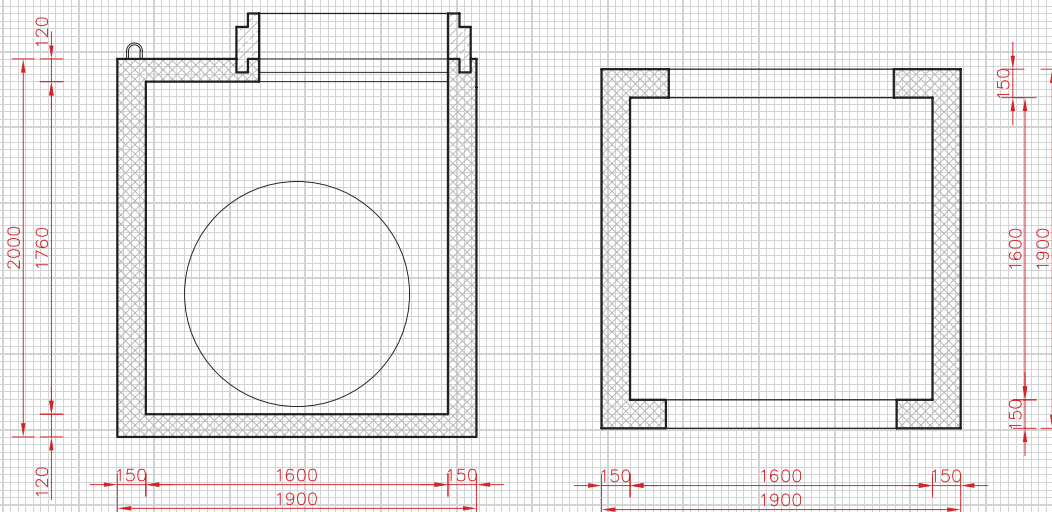
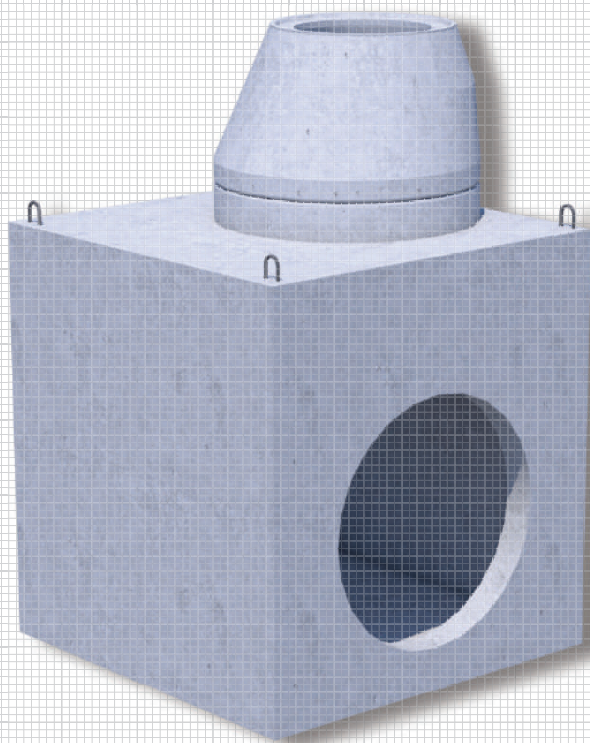
- Integrated rubber elastic seal is used only on vertical joints of the elements.
- The connection of the manhole and pipe is subsequently processed by expansion mortars.



Square reinforced concrete manhole with integrated rubber seals for plastic pipelines

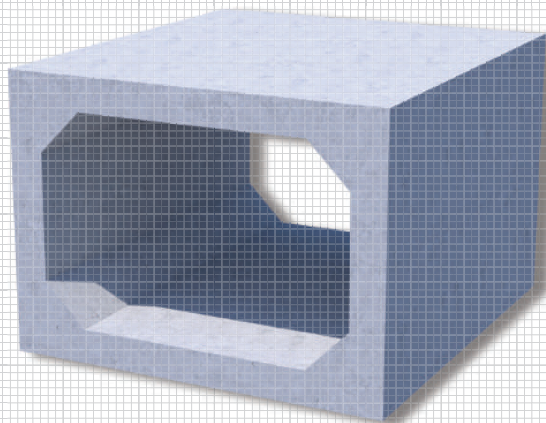
- Reinforced concrete square manhole is made of self-compacting concrete – SCC concrete, class C 35/45 (MB 45), exposure classes XC4, XD3, XF4, XA2.
- It fulfills the prescribed standards: shape; measures; appearance; testing pressure resistance; watertightness.
- Integrated rubber elastic seal is used only on vertical joints of the elements. The connection of the manhole and pipe is subsequently processed by expansion mortars.
- It fulfills the requirements of BAS EN 1917 standard.

- weight:
- 6025 kg

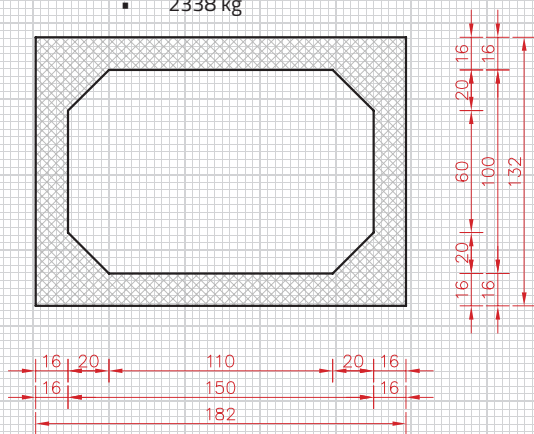


Reinforced concrete box culverts

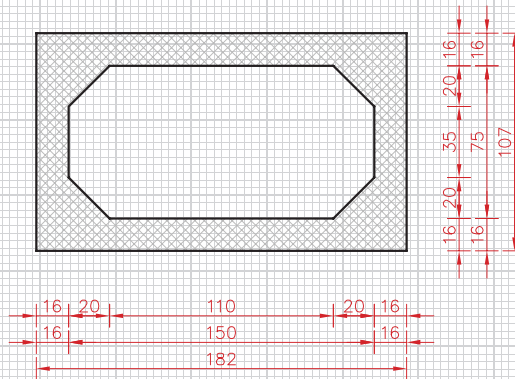
- The culverts are structures which are used for roads to cross over water courses(ditches, streams, channels).
- They are used for passing of animals, pedestrians and smaller vehicles under individual or combined traffic routes.
- They are made of high quality SCC concrete C35/45 (MB 45, self-compacting concrete).



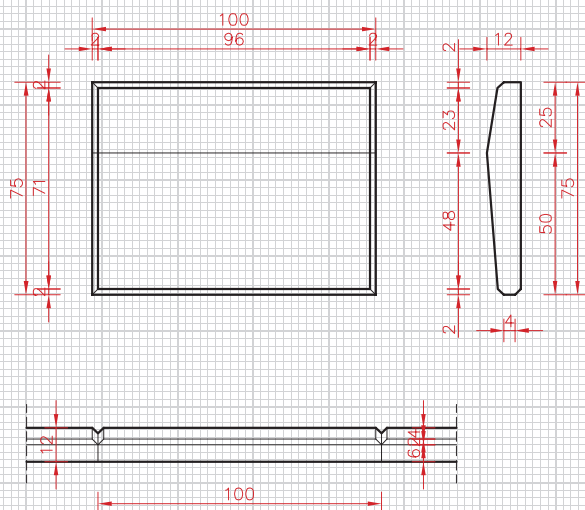
- weight:
- 2338 kg



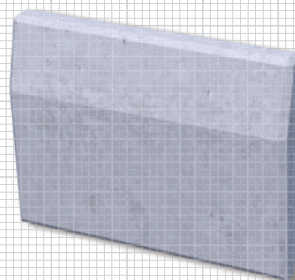
- weight:
- 2104kg



Reinforced concrete edge beams



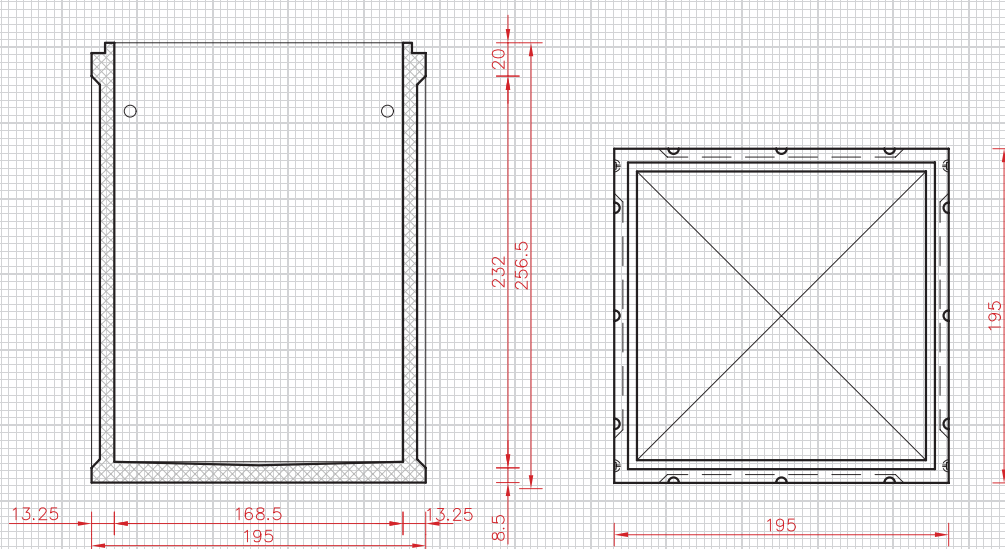
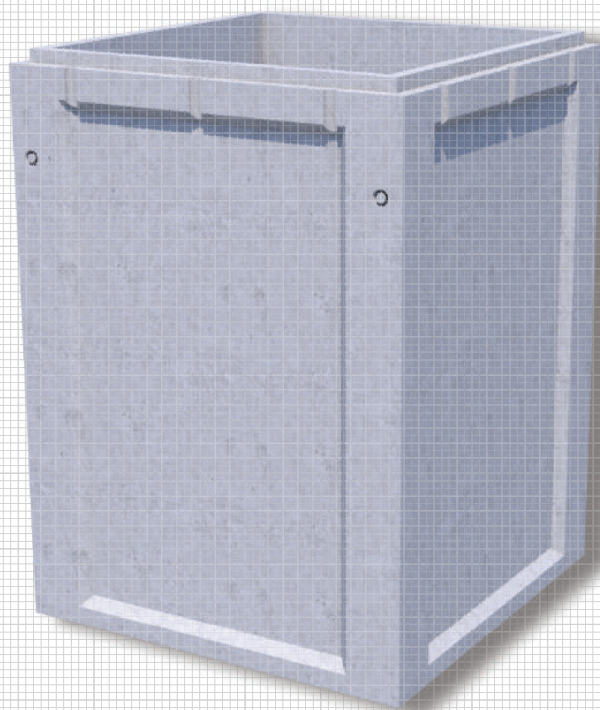
- The edge beam is the edge element at the end of the cantilever. It is important for the final look of the structure.
- It is made of high quality SCC concrete C35/45 (MB 45 self-compacting concrete).



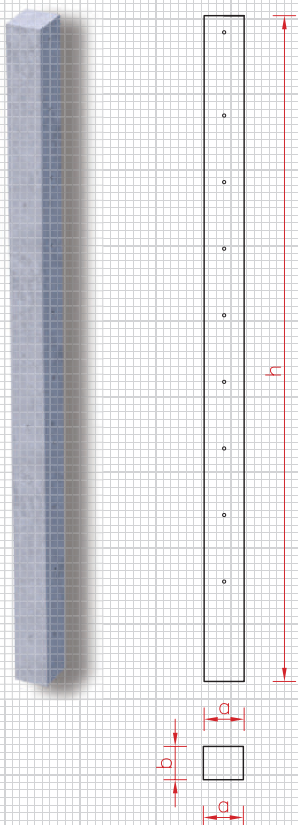
Reinforced concrete shafts for underground containers

- They are made of high quality SCC concrete C35/45 (MB 45 self-compacting).

- weight:
- 5140 kg



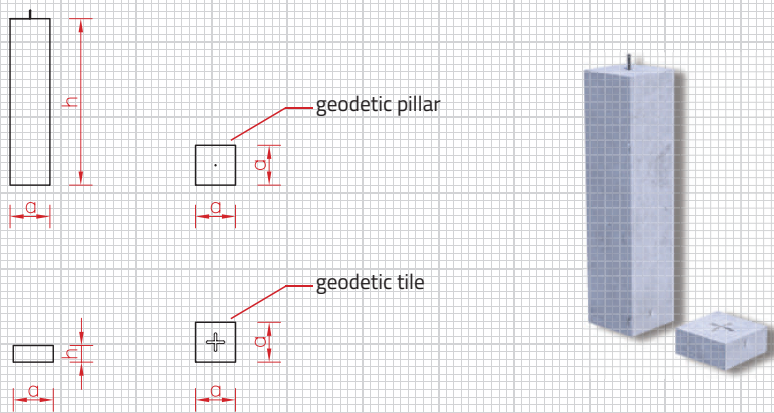
Reinforced concrete pillars for fences



TECHNICAL CHARACTERISTICS

dimensions (cm)	kg/ piece	pieces/ pallet	pallet mass
8x8x150	23	55	1265
8x8x180	28	55	1540
8x8x200	31	55	1705
10x12x170	49	50	2450
10x12x190	55	50	2750
10x12x200	58	50	2900
10x12x220	64	50	3200
10x12x250	72	50	3600
10x12x280 iskošeni	81	50	4050

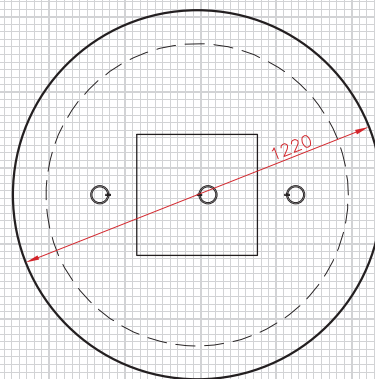
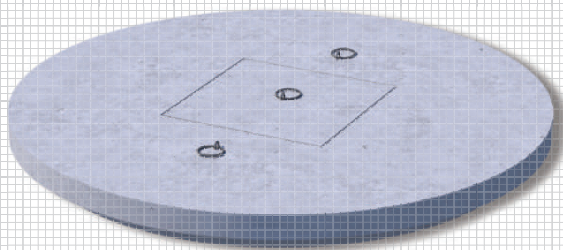
Geodetic pillars



TECHNICAL CHARACTERISTICS

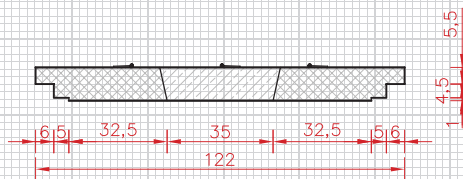
dimensions (cm)	kg/piece
10x10x40	10
12x12x50 with tile	19

Reinforced concrete covers for pipes

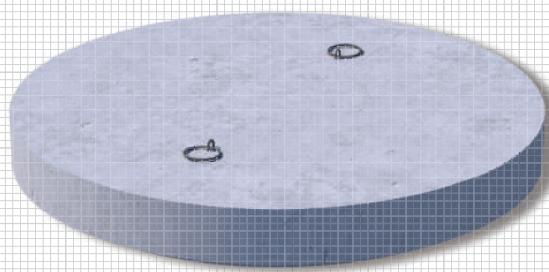
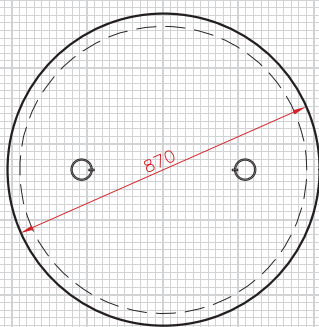


TECHNICAL CHARACTERISTICS

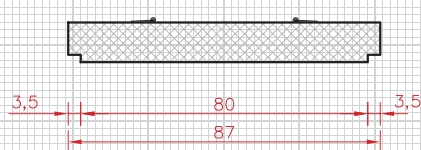
Inside diameter Dn(mm)	Outside diameter D(mm)	cover thick- ness d(mm)	cover weight kg
1000	1220	110	240
800	990	100	130
600	750	80	77
500	625	70	48



Reinforced concrete covers for manhole

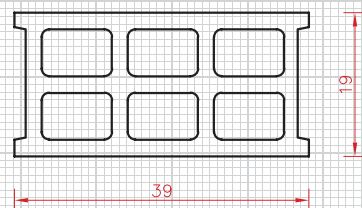
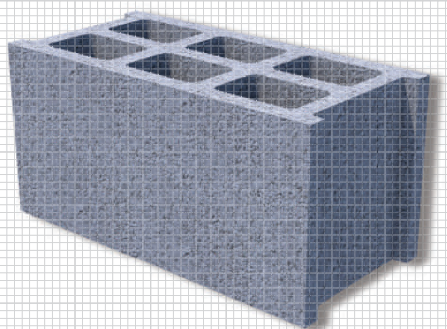


TECHNICAL CHARACTERISTICS



Inside diameter Dn(mm)	Outside diameter D(mm)	cover thick- ness d(mm)	cover weight kg
800	870	110	150

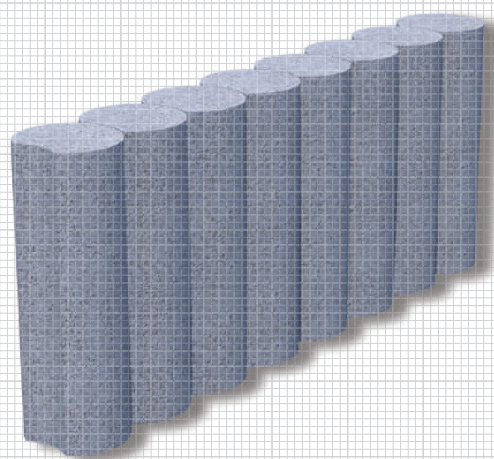
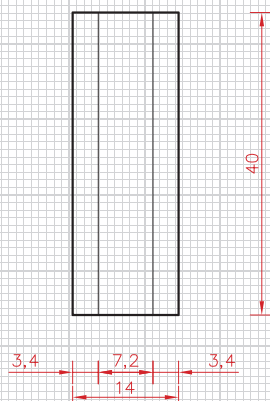
Concrete block



TECHNICAL CHARACTERISTICS

dimensions (cm)	kg/piece	pieces/pallet	palett mass
39x19x19	18	60	1020

Palisade



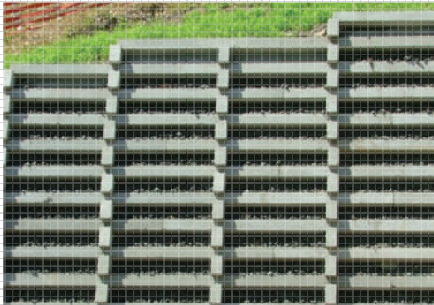
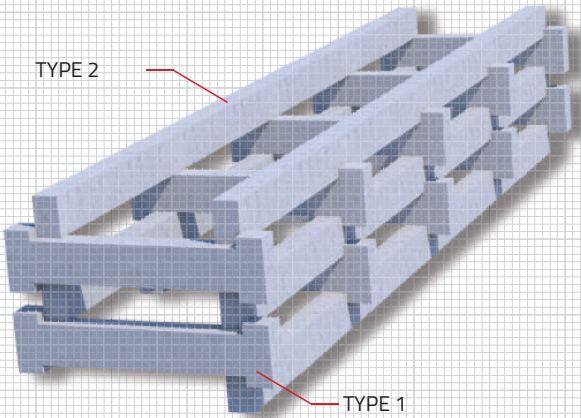
TECHNICAL CHARACTERISTICS

dimensions $\varnothing$ (cm)	height h (cm)	kg/piece
11	40	12

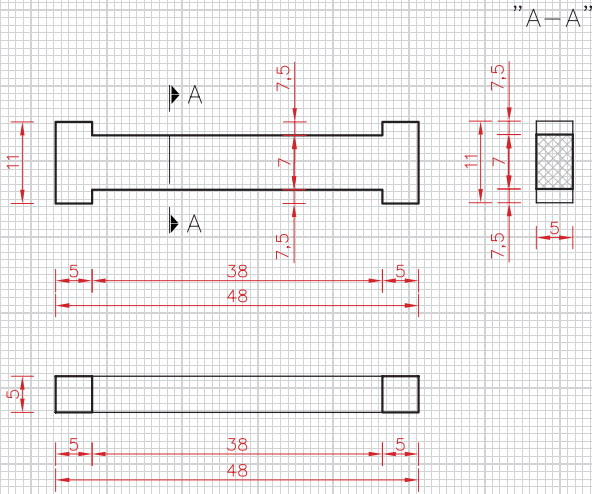


CRIB WALL

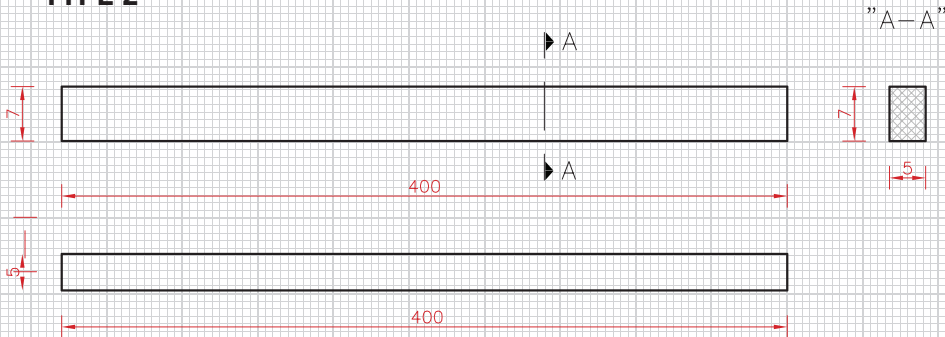
reinforced concrete elements for the terrain stabilization

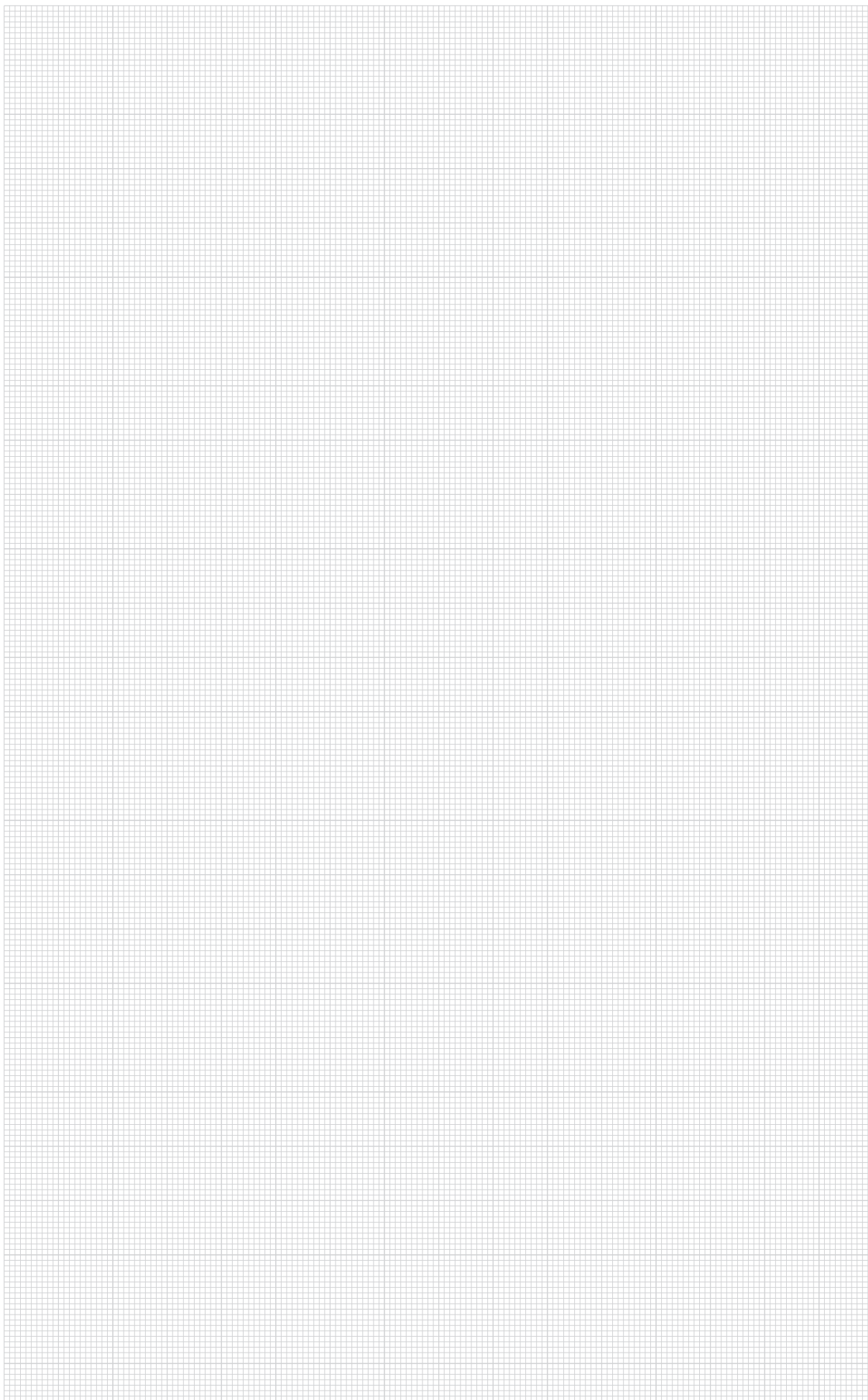


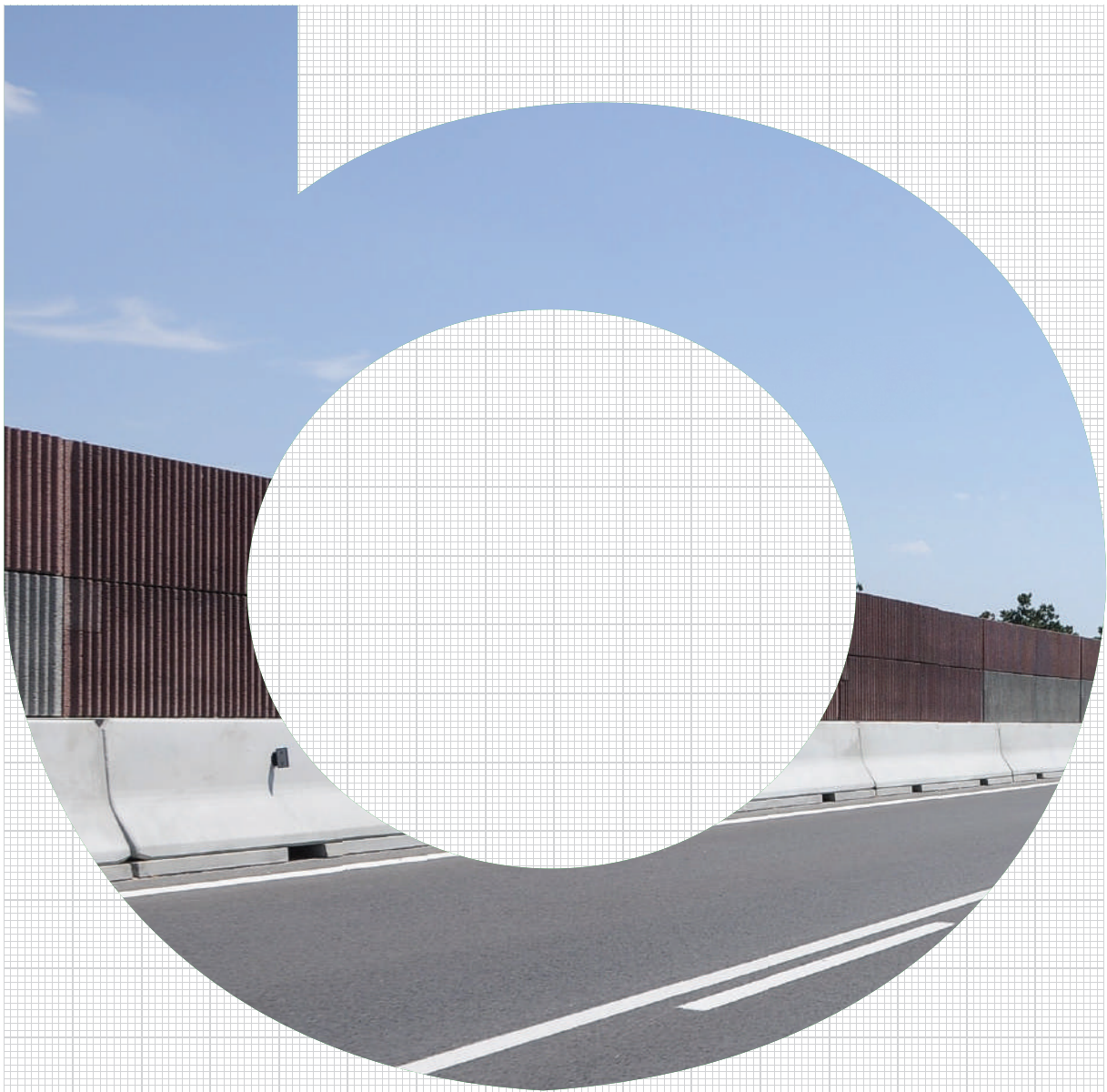
TYPE 1



TYPE 2







Licensed products in cooperation with the Austrian company Delta Bloc

DELTA BLOC

concrete safety barriers

Delta block system

Delta block system is a flexible security system on roads consisting of a chain of precast concrete elements placed directly on roads mutually connected with patented joints. The joints allow a limited lateral displacement of the system.

In the case of a vehicle impact, the system absorbs impact energy due to limited displacement of the elements of system, which for passengers in the vehicle means larger safety and lower risk of injuries.

They are used both for permanent protection on roads and bridges, as well as for temporary protection of construction sites.

They are produced according to EN1317-1 and EN 1317-2 standards, from SCC concrete C35/45, XC4/XD3/XF4/XA1L/SB (A), which are produced in accordance with EN 206-9 standard.

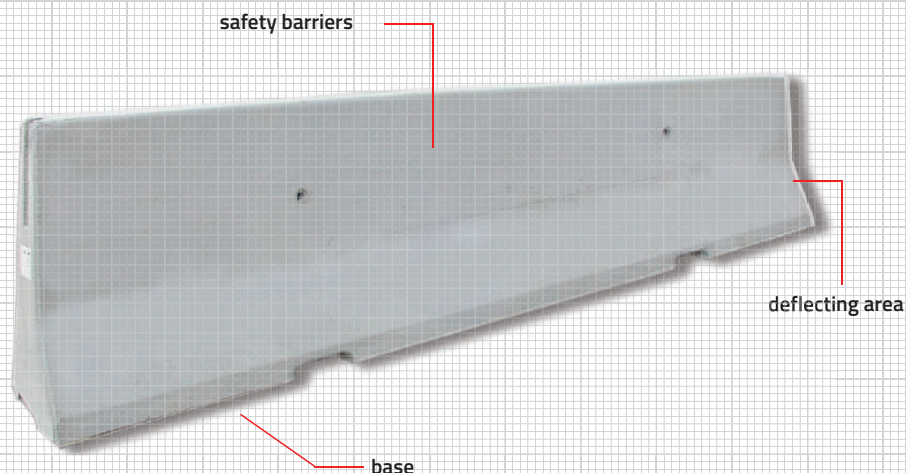
Traffic safety and protection

Delta Bloc protects against:

- penetration into the adjacent lane
- blinding from the opposite direction
- turnover after impact
- serious injuries of passengers in the vehicle
- rockfalls
- small animals
- the flood

Characteristics of the Delta Bloc Elements

- The shape of Delta Bloc elements is based on the New Jersey profile because it turned out that exactly this shape significantly reduces the risk of turnover of the vehicle.
- Due to the deflecting area directly above the base of the element, the vehicle during impact is directed back into the traffic lane and the direct impact into the safety barrier is avoided.
- Safety barrier, in case of strong impact, prevents the vehicle penetrating into the adjacent lane ensuring optimum safety with effect of continuous tension rod.
- A continuous tension rod which passing through the element connects the elements into a chain using galvanized steel joints.
- The combined properties of steel and concrete ensure elastic chain behavior and limited displacement of elements.
- Rainwater drainage from the road is solved with standard constructed channels in the base of element at distances of 2 m.



Efficiency and functionality of Delta Bloc system

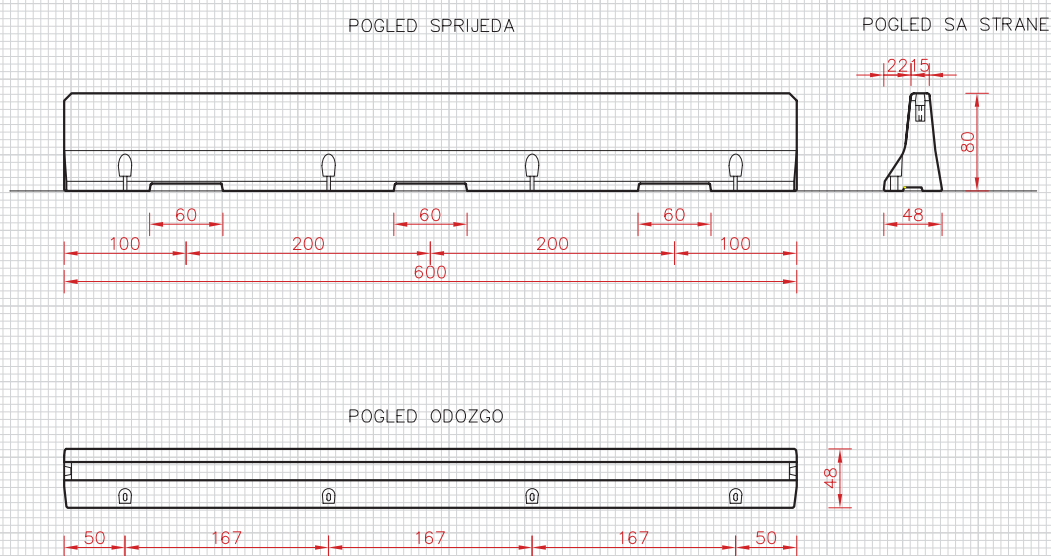
- minor damages of the vehicle during impacts at lower speeds
- there is no barrier damage during impacts at small/medium speeds
- significantly lower maintenance costs than steel protective fences
- simple and quick replacement of damaged element
- after changing of damaged element, the tension rod of the entire system is operation again
- after displacement of element due to vehicle impact, the element can be returned to starting position using appropriate equipment
- chain opening is possible anywhere
- the installation of elements does not depend on weather conditions
- easy displacement during construction of roads in various phases
- uniform quality of elements
- high accuracy of dimensions
- there is no loss of strength over time

Production program

We will only show some products from the production program and all products and technical data (protection level, working width, dimensions) can be found on the website: www.deltabloc.com

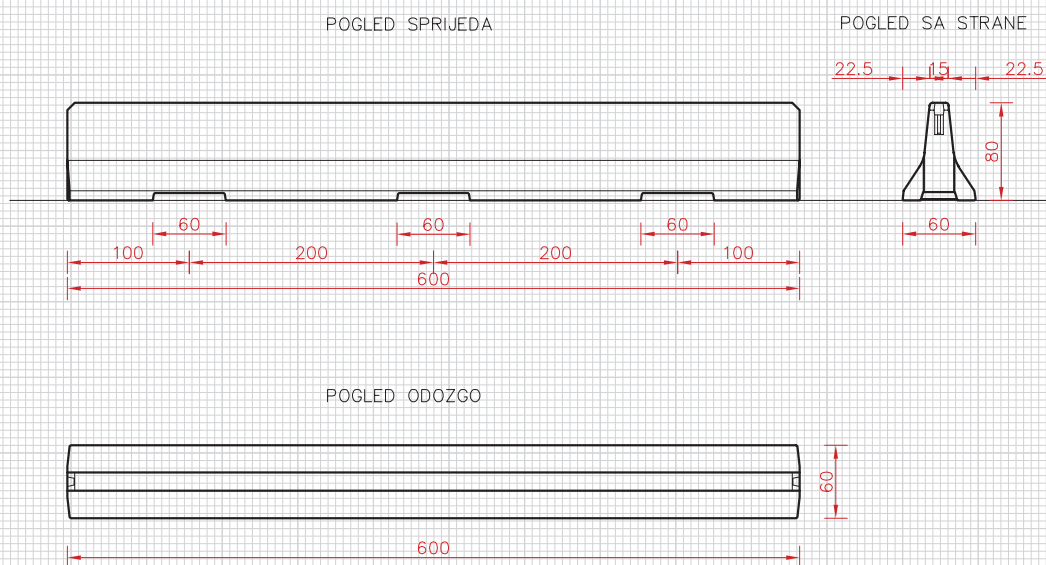
DELTA BLOC

asymetric element h=80cm



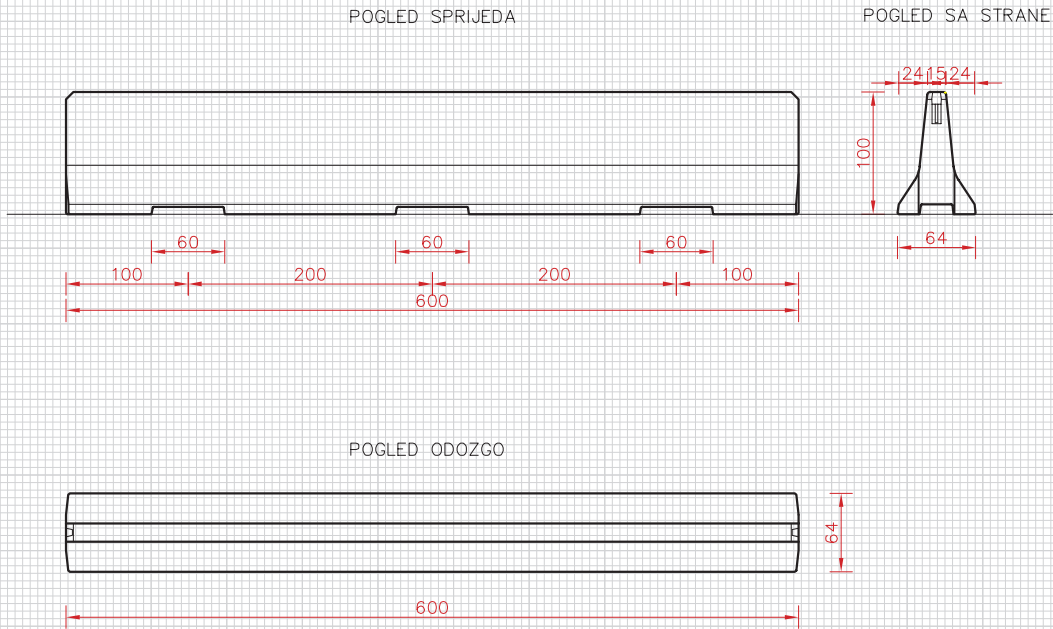
DELTA BLOC

standard element h=80cm

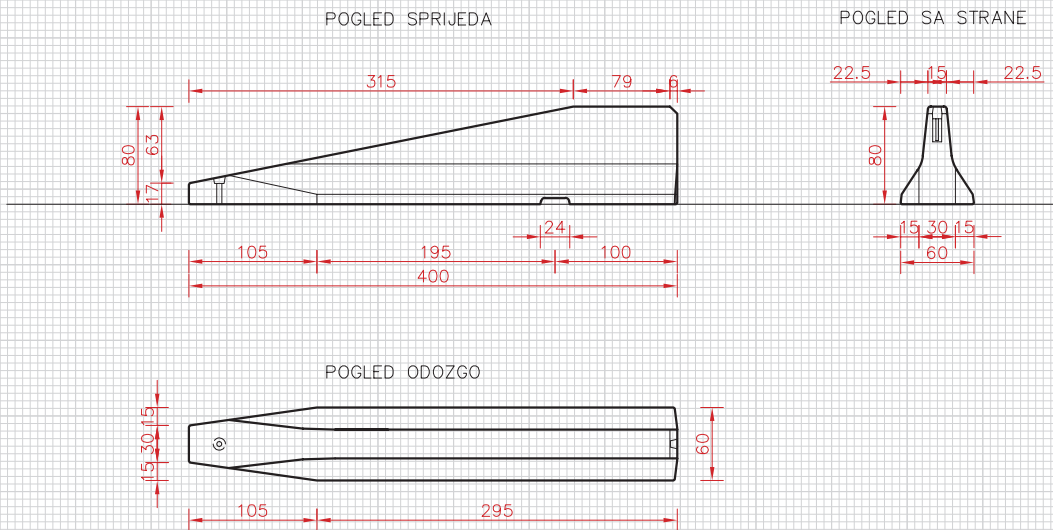




DELTA BLOC
standard element h=100cm

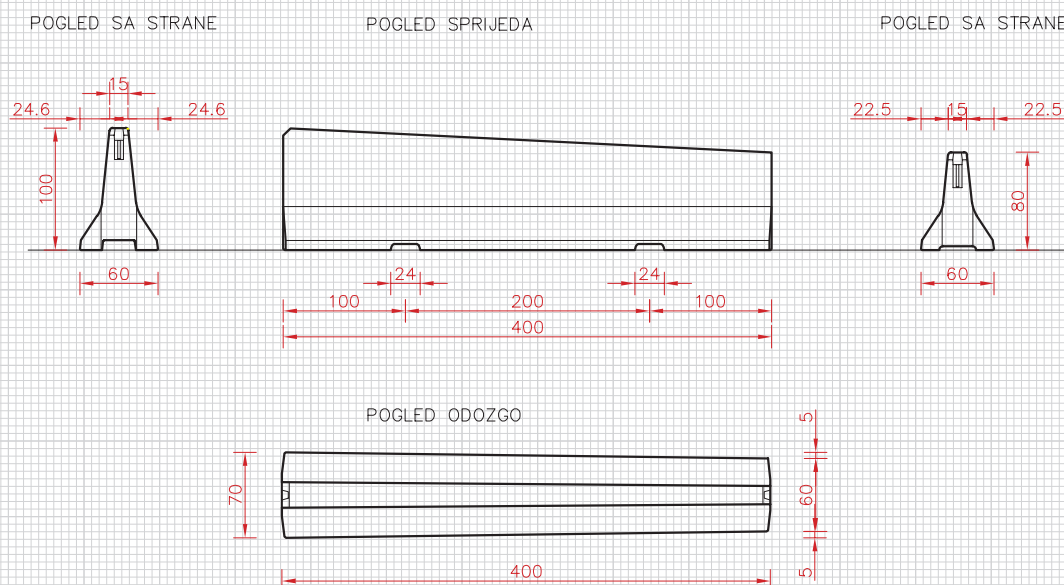


DELTA BLOC
starting element h=17-80cm



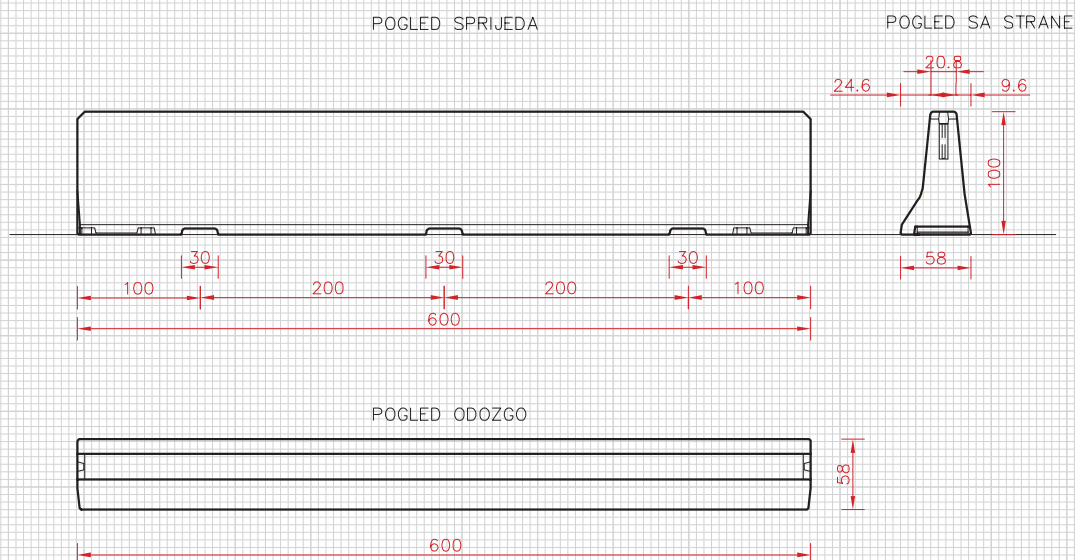
DELTA BLOC

transition element h=80-100cm



DELTA BLOC

bridge element h=100cm



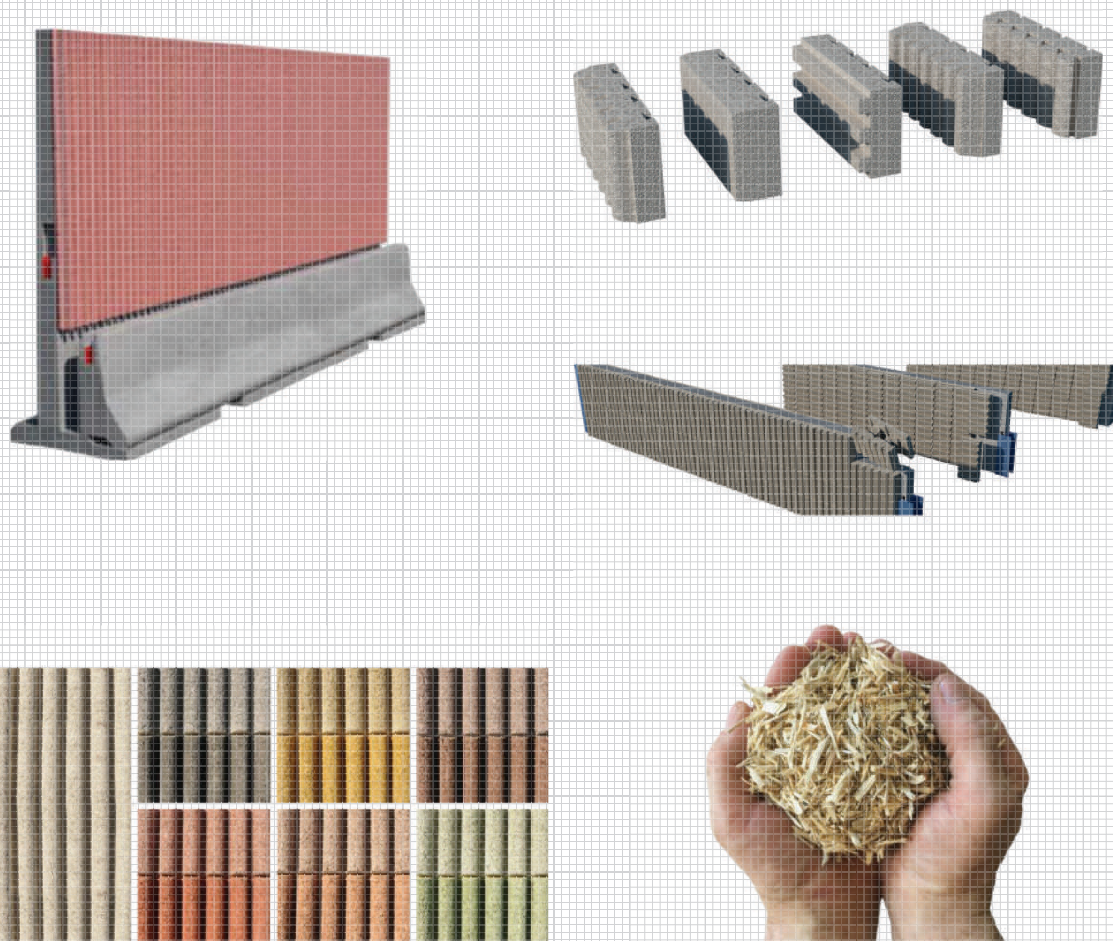
PHONOBLOC – NOISE PROTECTION

- Licensed partnership with the Austrian company “Delta Bloc”.
- They are used for the protection of structures and buildings, people, improvement of conditions and quality of life and ecological standards by reducing noise levels, and they can be seen along a number of motorways and railways of surrounding countries (Hungary, Slovenia, Croatia, Austria), as well as many other countries across Europe and the world.
- Regulations require that everyday noise above 65 decibels must be reduced to this level. The average noise level of vehicles on the motorway is 80 decibels.

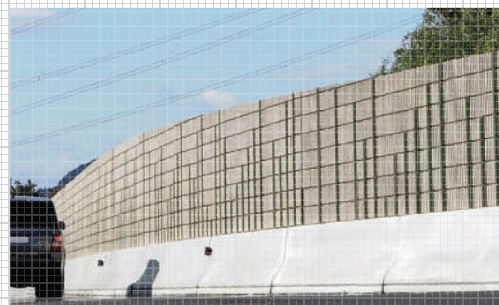
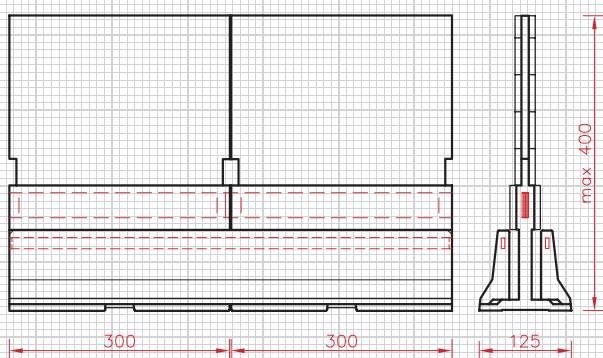
Phonoblock system

The “Phonobloc” system produced by BINIS is distinguished from other systems with quality, large absorption power of sound waves (and not just reflection), durability and possibility of architectural design of the fence, pattern, relief and color. It is important to mention that products made of natural materials, i.e. special mixtures of concrete, do not harm the environment.

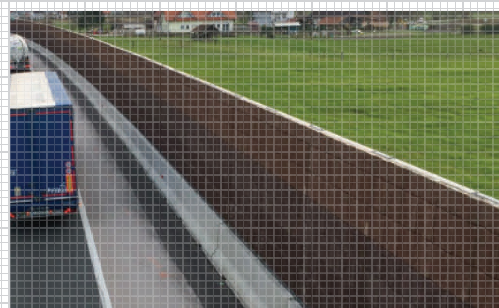
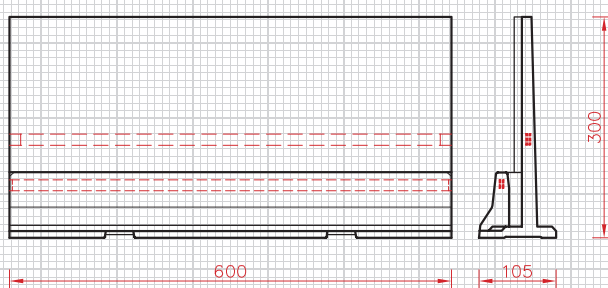
Particularly interesting from the economic side and a cost-effective product is the integrated sound barrier of the LSW series where the safety concrete and sound barrier are combined – they require less space and the founding of such elements is not necessary.



DB 80 LSW-R



DB 100 LSW-M



General Terms and Conditions of Sale and Delivery

I AND GENERAL PROVISIONS

1. These General Terms and Conditions of Sale (hereinafter referred to as "the Terms") shall form an integral part of all contracts on sale and delivery of the products described below (hereinafter referred to as "the Contract"), which "Binis" d.o.o. (PLC) Banja Luka, nn Jovana Bijelića Street (hereinafter referred to as "Binis"), concludes with its customers during their regular activities.
2. "Binis" shall publish these Terms, as well as their amendments, on its website, and also, "Binis" shall make it available to the other contracting party in any other convenient way.
3. Based on these conditions, "Binis" acts as a manufacturer and seller of transportable concrete, sewer systems – manholes, concrete pipes, concrete plates, concrete curbs and other concrete products (hereinafter referred to as "Products") according to the customer request.
4. According to these Terms, the customer is any person whose order will be accepted by "Binis".

II OFFER AND CONCLUSION OF THE CONTRACT

1. Bids offered by "Binis" are not binding and they do not create an obligation for "Binis", especially in terms of price, delivery deadline, etc. unless explicitly stated otherwise. In the case of a binding offer, it is considered that the Contract is concluded on the day when the buyer accepted such bid.
2. Product orders are made in written or verbally, and in which case the authorized employee of "Binis" shall make an appropriate note of such order.
3. Sale and delivery of products that "Binis" should perform will be exclusively defined by accepting and/or confirming the order of the buyer.
4. "Binis" reserves the right not to accept the order of the buyer exclusively for objective and serious reasons, and about which "Binis" will inform the buyer no later than 3 (three) working days from the day of receipt of orders.
5. It is considered that the Contract is concluded on the date on which "Binis" accepted and confirmed the order of the buyer.
6. All sale and delivery of products will be made under these conditions, unless otherwise specifically agreed with a particular buyer.

III PRICES AND CALCULATION

1. The price of the product is calculated according to the price list valid on the day of giving it obligatory offer or acceptance of the order of buyer by "Binis".
2. The prices are listed without VAT in the wholesale price list.
3. "Binis" is authorized to change the price listed in the price list in accordance with market conditions. Such price list will be available to customers in the usual way. Concluded contracts will not be affected by changes of price list.
4. Unless otherwise agreed, all prices are expressed by EXW "Binis", loaded.
5. Only quantities of delivered products will be charged to the buyer on the basis of duly signed bill of loading.
6. The buyer will also be charged for pallets. If the pallets are returned undamaged within 90 days from the day of delivery, "Binis" will return the amount paid for the pallet to the buyer.

IV DELIVERY OF PRODUCTS

1. The deadlines indicated in the binding offer, i.e. acceptance of order apply for all deliveries. The usual delivery time for the product is 7-14 days if the product is not in stock, and for products in the storehouse, the usual delivery is 2-4 days period.
2. If the buyer, before taking over of any product, for any reason, cancels the order, he is obliged to compensate "Binis" for damage in the amount of 10 % of the total value of the ordered and unaccepted product.
3. By product delivering, the obligation of "Binis" is considered executed.

V PAYMENT OF PRODUCTS

1. All payments for the delivered products shall be made in the manner and within deadlines specified in the Contract.
2. For late payments, "Binis" will invoice legal default interest to the buyer, if not agreed otherwise.
3. If delay in payment is longer than 30 days after the due date, the buyer will be warned.

VI GUARANTEES

1. "Binis" guarantees the quality of its products.
2. At the request of the buyer, "Binis" will provide the customer with all necessary written and other evidence of quality and conformity of delivered products according to valid regulations and standards.
3. The guarantee on "Binis" products is 2 years from the delivery date.

VII REPRESENTATION OF THE BUYER

1. The buyer is obliged to check the information specified in the delivery note immediately upon receipt of the goods.
The buyer is obliged to submit to "Binis" a written complaint for all visible product defects within 3 days from delivery date and a written complaint for hidden product defects within 14 days from delivery date.
2. Complaints outside these deadlines will not be accepted.
3. Insignificant differences in the color of the identical concrete plates, and small differences in structure, as well as efflorescence, are not the subject of complaint because they do not affect the product quality. The efflorescence is the result of chemical process resulting in the release of unbound limestone, which rinses and vanishes under the influence of normal weather conditions. It is not considered as a deficiency according to the European standards EN1338, EN 1339, and EN 1340.

VIII RETURN OF GOODS

1. Product return is approved for products in its original package. Otherwise, it will not be taken over.
2. In case of product return, the buyer must present a delivery note with the specified product types and quantities.

IX FINAL PROVISIONS

1. The contracting parties are obliged to resolve all disputes that might arise from the application or interpretation of certain provisions of these Terms by mutual agreement, and if it is not possible, the Basic Court in Banja Luka is competent.
2. The General Conditions shall enter into force on the date of their adoption, and they shall apply from January 01, 2010.

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Jovana Bijelića bb
Banja Luka
Bosna i Hercegovina

T: +387 (0)51 389 300
F: +387 (0)51 389 310
+387 (0)51 389 315
E-mail: binis@blic.net

SALES

+387 (0)51 389 308
+387 (0)51 389 320

DELIVERY

+387 (0) 51 389 317

