



TRANSPORT INFRASTRUCTURE

2017

See www.csbeton.cz for tips, advice
and product information

DEAR CUSTOMERS,

This year, we have changed our marketing strategy to divide products which we manufacture for two very different types of customers.

We published a separate Home and Garden catalogue containing STANDARD prefabricated products for home and garden architecture, intended predominantly for end users, such as concrete pavers, kerbstones, decorative retaining walls, fire pits, planters, wells, drainage shafts, as well as formwork and wall blocks.

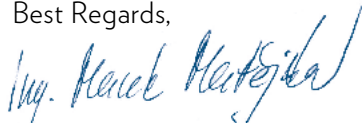
This catalogue, Transport Infrastructure, highlights our prefabricated concrete products intended for transport infrastructure projects, including drainage and sewage systems. These products will find use in projects involving construction of roads, bus stops, large car parks, airports and logistic centres. We offer a uniquely comprehensive and variable product line. The catalogue includes a list of all STANDARD products, but custom options and/or designs can also be made upon request.

Our products can be used in many ways and an informed choice between individual versions requires experience and detailed project documentation. This catalogue should serve as a basic overview of our product line. Detailed technical specifications and drawings are provided in relevant Technical sheets, available for download at www.csbeton.cz/cs/ke-stazeni.

Our technical experts will gladly assist you with advice on selecting the best solutions for your project, prepare layout drawings and customise installation and user guidelines to suit your application.

Prices for individual products will be provided in project-based quotes and depend on the quantities ordered, time and place of delivery and number of customisations. To request a free quote for your project, please contact our sales representatives using contact information provided on our Website at www.csbeton.cz/cs/kontakty.

Best Regards,



Ing. Marek Matějka

Managing Director

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QUALITY OF MATERIALS IN TRANSPORT INFRASTRUCTURE CONSTRUCTION

Extreme demands are being made for the quality of prefabricated concrete products for transport infrastructure. These products must withstand heavy traffic, as well as chemical agents used during winter, to a much larger extent than products designed for landscaping around private homes or residential developments. Additional requirements on product properties and dimensions are made not only by investors, but also by Government agencies in charge of overseeing technical quality specifications. Bad-quality products not only complicate the construction process and increase the costs, but can also potentially endanger road users. To be able to sell such products, a manufacturer needs personnel with thorough knowledge of production and use of wet-cast and vibro-cast concrete, as well as significant investment into passing all necessary tests. Product quality is continuously monitored by relevant technical STANDARD authorities. Selection of the best supplier is a key to success in transport infrastructure projects.

CS-BETON enjoys a position of a leading supplier of prefabricated concrete products for the transport infrastructure industry thanks to unparalleled quality, good technical support and continuous innovation. We supply the best quality slot drains, road barriers, kerbstones, channel blocks and many other products, not just as individual components, but as comprehensive solutions. We keep innovating our solution to reflect the needs and experience of our customers, while maintaining demanding time schedules common in transport infrastructure projects.

Our slot drain line has been expanded this year to include Profile VII slot drains, which have an offset slot and a recessed kerbstone to accommodate cable-duct covers and are intended especially for tunnels. To promote cyclists' safety, we introduced the I-CY Profile slot drains for cycling paths. Investors appreciate the fact that for each type of slot drain, we can supply a patented Replaceable segment, minimising the number of slot drain segments which have to be removed when a damaged segment needs to be replaced. For tunnels, we supply a special fire barrier segment, also patented. These products are available anywhere in the Central Europe.

CS-BETON's concrete road barriers include our patented articulated joint technology, enabling them to be formed into curved shapes. This joint technology ensures fast and easy installation of road barriers and is the only system enabling polygonal barriers with full restraining capacity. For concrete road barriers installed on non-compacted surfaces, we now offer a road barrier ground plate, which ensures horizontal movement and thus proper restraining function even on such surfaces.

Based on demand from our existing customers, we have also extended our product line to include a comprehensive array of sewage and drainage systems. We now offer sewer shaft rings including taper tops, cover plates and shaft base plates, draining shafts, street gullies and make up pieces. We are also the only manufacturer of such components to offer an option with integrated seals.

As a long-time producer of Kassel kerbs, we have been monitoring problems construction companies face when surfacing bus and trolleybus stops. Deformations of road surface often acts against the advantages of the Kassel kerbs. This is why we have introduced a patented system of bus stop panels, which can be used to quickly build not only the passenger area, but also the part where vehicles stop and accelerate. The system is based on the principle of load-distribution, with concrete slabs distributing horizontal forces from heavy vehicles braking and accelerating. This eliminates any deformation or damage to the road surface and minimises the need for costly refurbishment and repairs. The main advantage of this solution is the speed with which it can be installed, a bus stop can be refurbished and reopened in several days.

We also offer additional products used in transport infrastructure construction, such as interlocking pavers, permeable pavers, kerbstones, channel blocks and retaining walls. These products are mostly made by press-vibration, but are subject to the same qualitative requirements as our wet/vibro cast products. Given the warranty times and potential penalties, selection of suppliers for these types of products is also a key factor.

For more information on individual products, quality STANDARDS, certificates, accredited testing and technical support, please visit our Website at www.csbeton.cz

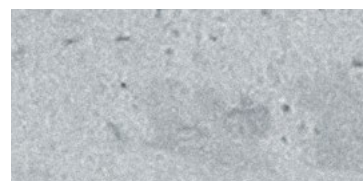
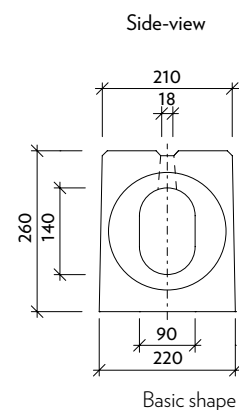


LINE DRAINAGE SYSTEMS

IS01 CSB – MICRO-SLOT DRAINS - M PROFILE

Name	Order code	Nominal dimensions* mm			Weight kg/pcs
		Basic height	Width	Length	
Micro-slot drains with interrupted slot	M-T	260	210/220	1000	103
Micro-slot drains with interrupted slot, 0.5% flow profile bottom gradient	M-G	260	210/220	1000	113
Micro-slot drains with interrupted slot, corner segment	M-corner	260	400	400	67
Basic cleaning segment C0	M-C0	260	210/220	1000	100
Top cleaning segment CS	M-CS	260	210/220	1000	116
Basic gully assembly V0	M-V0	260	210/220	1000	93
Gutter gully assembly VU	M-VU	260	210/220	1000	89
Spigot end cap	M-ZU	260	210/220	120	15
Socket end cap	M-ZZ	260	210/220	120	11

* Nominal dimensions include installation dimensions and/or minimum gap.



WET-CAST / A - NATURAL GREY



CSB-MICRO-SLOT DRAINS - PROFILE M

WET-CAST

The micro-slot drains are suitable for draining rainwater contaminated with small quantities of oil products (drips) from surfaced areas such as traffic infrastructure, parking lots and lay-bys, etc. Individual segments are relatively light and can be handled without lifting equipment. Micro-slot drains are designed for D400 class traffic load.

The system consists of the following components:

- 1 m-long slot drain, with or without internal flow gradient
- Slot drain - corner segment

Accessories:

- Complete gully assembly including cast-iron grill, gully trap, cone element and gully shaft
- Cleaning segment incl. cast iron grille
- End cap



CSB-PROFILE T SLOT DRAIN

WET-CAST

Its flow profile places this slot drain between the micro-slot drains and the Profile I slot drains.

T Profile slot drains are ideal for tunnels and surfaced areas with a minimum gradient of 0.5%. T profile slot drains are only available with no internal gradient. They are self-cleaning under higher flow rates. T Profile segments are designed for D400 class traffic load. **T-0 segments are not designed for transversal vehicle travel.**

The system consists of the following basic components:

- 4 m-long slot drain, without internal flow gradient
- Slot drain with 12 cm kerbstone
- Replaceable segment, T-3 PROFILE, with 12 cm kerbstone

Accessories for all the above slot drains:

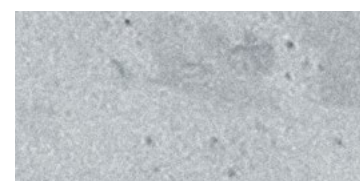
- Complete gully assembly, incl. cast iron grille and gully trap
- Complete gully assembly with steel cover for use in tunnels
- Cleaning segment incl. cast iron grille
- End cap

LINE DRAINAGE SYSTEMS

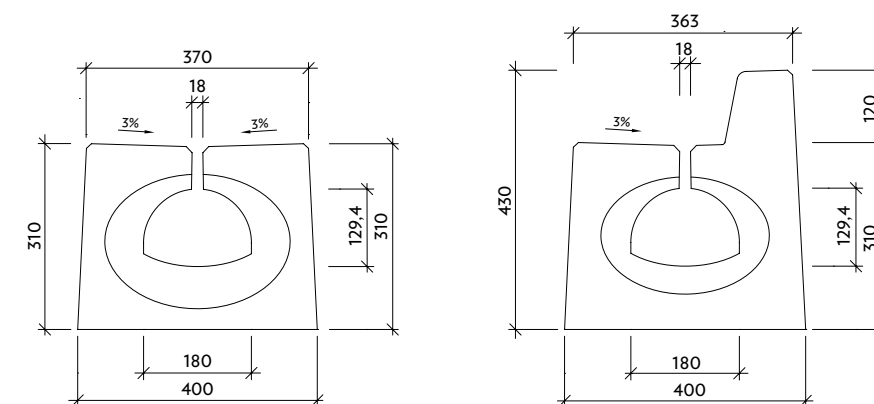
IS02 CSB – PROFILE T SLOT DRAIN

Name	Order code	Nominal dimensions* mm			Weight kg/pcs
		Basic height	Width	Length	
Slot drain with continuous slot	T-0	310	370/400	4000	945
Slot drain with interrupted slot	T-1	310	370/400	4000	995
Slot drain with continuous slot and 12 cm kerbstone	T-3	310	370/400	4000	1061
Slot drain with continuous slot – replaceable segment	T-3-V	310	370/400	-	-
Special 12 cm kerbstone	T-3-O	150	363/370	2000	310
Basic gully assembly V0	T-V0	310	370/400	1000	-
Gutter gully assembly VU	T-VU	310	370/400	1000	-
Basic cleaning segment C0	T-C0	310	370/400	1000	-
Top cleaning segment CS	T-CS	310	370/400	1000	-
Fire safety barrier	T-PP	600	370/410	1000	-
Spigot end cap	T-ZU	310	370/400	120	-
Socket end cap	T-ZZ	310	370/400	120	-

* Nominal dimensions include installation dimensions and/or minimum gap.



WET-CAST / A - NATURAL GREY



Basic shapes

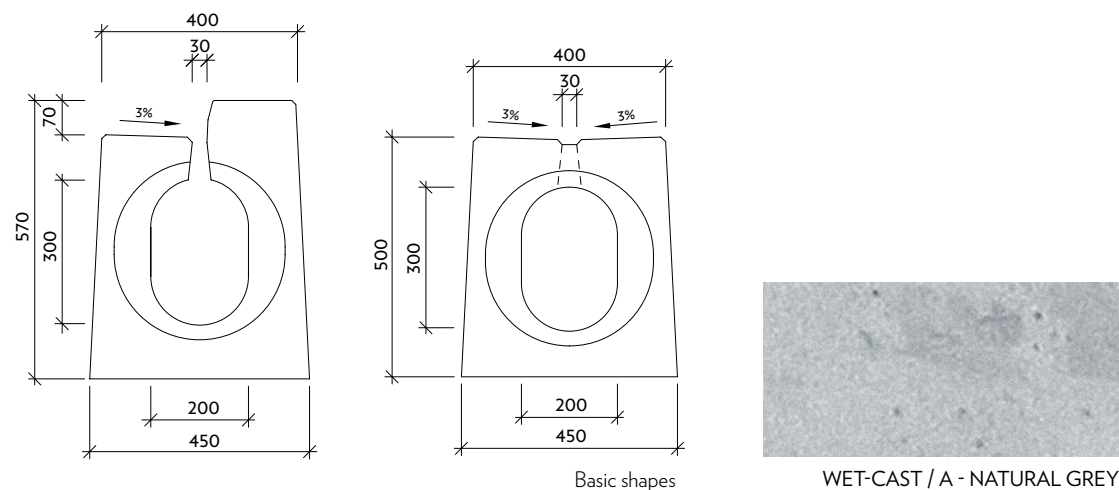
Side-view

LINE DRAINAGE SYSTEMS

ISO3 CSB – PROFILE I SLOT DRAIN

Name	Order code	Nominal dimensions* mm			Weight kg/pcs
		Basic height	Width	Length	
Slot drain with continuous slot	I-0	500	400/450	4000	1496
Slot drain with continuous slot, 0.5% flow profile bottom gradient	I-0-G	500	400/450	4000	1688
Slot drain with interrupted slot	I-1	500	400/450	4000	1510
Slot drain with interrupted slot, 0.5% flow profile bottom gradient	I-1-G	500	400/450	4000	1702
Slot drain with interrupted slot for cycling paths	I-1-CY	500	400/450	4000	1510
Slot drain with interrupted slot for cycling paths, 0.5% flow profile bottom gradient	I-1-CY-G	500	400/450	4000	1702
Slot drain with continuous slot and 7 cm kerbstone	I-2	500	400/450	4000	1584
Slot drain with continuous slot and 7 cm kerbstone, 0.5% flow profile bottom gradient	I-2-G	500	400/450	4000	1752
Slot drain with continuous slot and 12 cm kerbstone	I-3	500	400/450	4000	1704
Slot drain with continuous slot and 12 cm kerbstone, 0.5% flow profile bottom gradient	I-3-G	500	400/450	4000	1877
Slot drain with continuous slot and 15 cm kerbstone	I-4	500	400/450	4000	1710
Slot drain with continuous slot and 15 cm kerbstone, 0.5% flow profile bottom gradient	I-4-G	500	400/450	4000	1898
Slot drain with covered slot and 12 cm kerbstone	I-5	500	400/450	4000	1681
Slot drain with covered slot and 12 cm kerbstone, 0.5% flow profile bottom gradient	I-5-G	500	400/450	4000	1849
Slot drain with covered slot and 15 cm kerbstone	I-6	500	400/450	4000	1738
Slot drain with covered slot and 15 cm kerbstone, 0.5% flow profile bottom gradient	I-6-G	500	400/450	4000	1877
Slot drain with continuous slot and 18 cm kerbstone	I-7	500	400/450	4000	1704
Slot drain with continuous slot and 18 cm kerbstone, 0.5% flow profile bottom gradient	I-7-G	500	400/450	4000	1877
Fire safety barrier	I-PP	950	400/495	2000	1540
Slot drain with continuous slot – replaceable segment	I-0-V	500	400/450	-	-
Slot drain with interrupted slot – replaceable segment	I-1-V	500	400/450	-	-
Slot drain - curved segment	I-1-OB	500	400/450	-	-
Basic gully assembly V0	I-V0	500	400/450	1000	-
Gutter gully assembly VU	I-VU	500	400/450	1000	-
Basic cleaning segment C0	I-C0	500	400/450	1000	-
Top cleaning segment CS	I-CS	500	400/450	1000	-
Spigot end cap	I-ZU	500	400/450	120	-
Socket end cap	I-ZZ	500	400/450	120	-

* Nominal dimensions include installation dimensions and/or minimum gap.



CSB-PROFILE I SLOT DRAIN

WET-CAST

Profile I slot drains are suitable for draining rainwater contaminated with small quantities of oil products (drips) from surfaced areas such as high-capacity traffic structures (motorways, dual carriageways, main roads, tunnels, runways, lay-bys, large parking lots, etc.). **Profile I-1** slot drains are designed for **D400, E600 and F900 class traffic loads and transversal vehicle travel**. **Profile I-0** slot drains and slot drains with kerbstones are designed for **D400 class traffic load and no transversal vehicle travel**.

The system consists of the following components:

- 4 m-long slot drain, with or without internal flow gradient
- Slot drains with a 7/12/15/18 cm kerbstone
- Curved slot drain
- **Replaceable segment, I-0 and I-1 profiles**

Accessories for all the above slot drains:

- Complete gully assembly incl. plastic cover/cast iron grille, gully trap and rectification cone
- Complete gully assembly with steel cover for use in tunnels
- Cleaning segment incl. plastic cover/cast iron grille
- End cap

LINE DRAINAGE SYSTEMS

ISO4 CSB – PROFILE II SLOT DRAIN

Name	Order code	Nominal dimensions* mm			Weight kg/pcs
		Height	Width	Length	
Slot drain with continuous slot	II-0	500	500/520	4000	1673
Slot drain with interrupted slot	II-1	500	500/520	4000	1700
Basic gully assembly V0	II-V0	500	500/520	1000	347
Gutter gully assembly VU	II-VU	500	500/520	1000	337
Basic cleaning segment C0	II-C0	500	500/520	1000	377
Top cleaning segment CS	II-CS	500	500/520	1000	387
Spigot end cap	II-ZU	500	500/520	120	84
Socket end cap	II-ZZ	500	500/520	120	57

* Nominal dimensions include installation dimensions and/or minimum gap.

CSB-PROFILE II SLOT DRAIN

WET-CAST

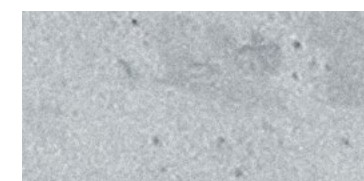
Profile II slot drains are suitable for draining rainwater contaminated with small quantities of oil products (drips) from surfaced areas such as high-capacity traffic structures (motorways, dual carriageways, main roads, tunnels, runways, lay-bys, large parking lots, etc.) in locations with significant rainfall and are only available with no internal gradient. **Profile II-0** slot drains (continuous slot) are designed for D400 class traffic load **and no transversal vehicle travel**. **Profile II-1** slot drains are designed for **D400, E600 and F900 class traffic loads**.

The system consists of four basic components:

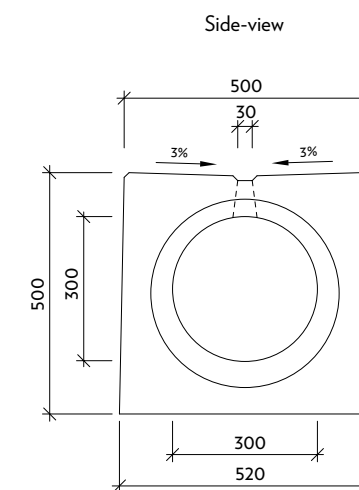
- 4 m-long slot drain, without internal flow gradient

Accessories:

- Complete gully assembly incl. plastic cover/cast iron grille, gully trap and rectification cone
- Cleaning segment incl. plastic cover/cast iron grille
- End cap



WET-CAST / A - NATURAL GREY



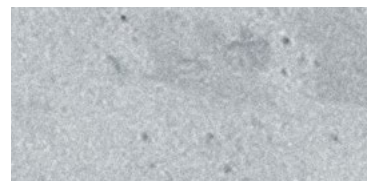
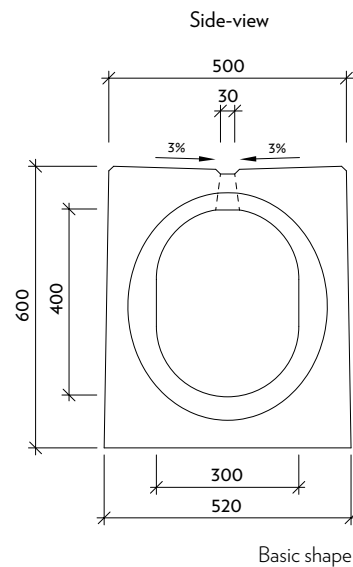
Basic shape

LINE DRAINAGE SYSTEMS

IS05 CSB – PROFILE III SLOT DRAIN

Name	Order code	Nominal dimensions* mm			Weight kg/pcs
		Height	Width	Length	
Slot drain with continuous slot	III-0	600	500/520	4000	1869
Slot drain with interrupted slot	III-1	600	500/520	4000	1897
Basic gully assembly V0	III-V0	600	500/520	1000	396
Gutter gully assembly VU	III-VU	600	500/520	1000	385
Basic cleaning segment C0	III-C0	600	500/520	1000	426
Top cleaning segment CS	III-CS	600	500/520	1000	437
Spigot end cap	III-ZU	600	500/520	120	102
Socket end cap	III-ZZ	600	500/520	120	67

* Nominal dimensions include installation dimensions and/or minimum gap.



WET-CAST / A - NATURAL GREY



CSB-PROFILE III SLOT DRAIN

WET-CAST

Profile III slot drains are suitable for draining rainwater contaminated with small quantities of oil products (drips) from surfaced areas such as high-capacity traffic structures (motorways, dual carriageways, main roads, tunnels, runways, lay-bys, large parking lots, etc.) in locations with extreme rainfall and are only available with no internal gradient. **Profile III-0** slot drains (continuous slot) are designed **for D400 class traffic load and no transversal vehicle travel**. **Profile III-1** slot drains are designed **for D400, E600 and F900 class traffic loads**.

The system consists of the following basic components:

- 4 m-long slot drain, without internal flow gradient
- **Accessories:**
 - Complete gully assembly incl. plastic cover/cast iron grille, gully trap and rectification cone
 - Cleaning segment incl. plastic cover/cast iron grille
 - End cap



CSB-PROFILE IV SLOT DRAIN

WET-CAST

Profile IV slot drains are suitable for draining rainwater contaminated with small quantities of oil products (drips) from surfaced areas such as high-capacity traffic structures (motorways, dual carriageways, main roads, tunnels, runways, lay-bys, large parking lots, etc.) in locations with significant rainfall and where rainwater must be drained as quickly as possible. They are most commonly used on runways and taxiways at airports and are available with or without internal gradient (0.5%). **Profile IV-0** (with continuous slot) are designed for **D400 class traffic load and are not intended for transversal vehicle travel**. **Profile IV-1** slot drains are designed for **D400, E600 and F900 class traffic loads**.

The system consists of the following basic components:

- 4 m-long slot drain, with (0,5%) or without internal flow gradient

Accessories:

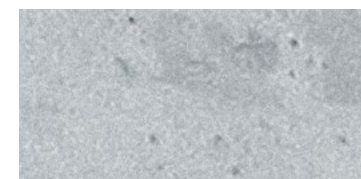
- Complete gully assembly incl. plastic cover/cast iron grille, gully trap and rectification cone
- Cleaning segment incl. plastic cover/cast iron grille
- End cap

LINE DRAINAGE SYSTEMS

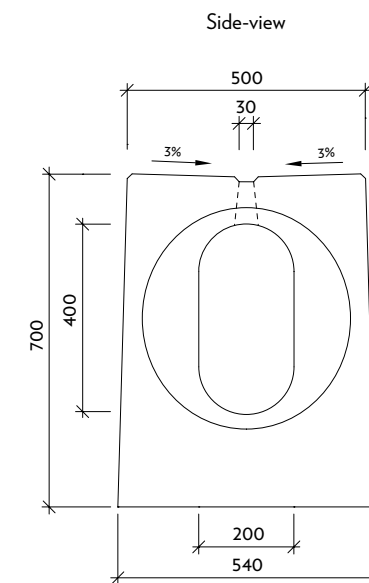
ISO6 CSB – PROFILE IV SLOT DRAIN

Name	Order code	Nominal dimensions* mm			Weight kg/pcs
		Height	Width	Length	
Slot drain with continuous slot	IV-0	700	500/540	4000	2632
Slot drain with continuous slot, 0.5% flow profile bottom gradient	IV-0-G	700	500/540	4000	2993
Slot drain with interrupted slot	IV-1	700	500/540	4000	2650
Slot drain with interrupted slot, 0.5% flow profile bottom gradient	IV-1-G	700	500/540	4000	3011
Basic gully assembly V0	IV-V0	700	500/540	1000	688
Gutter gully assembly VU	IV-VU	700	500/540	1000	668
Basic cleaning segment C0	IV-C0	700	500/540	1000	713
Top cleaning segment CS	IV-CS	700	500/540	1000	733
Spigot end cap	IV-ZU	700	500/540	100	85
Socket end cap	IV-ZZ	700	500/540	150	75

* Nominal dimensions include installation dimensions and/or minimum gap.



WET-CAST / A - NATURAL GREY



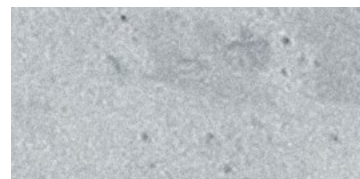
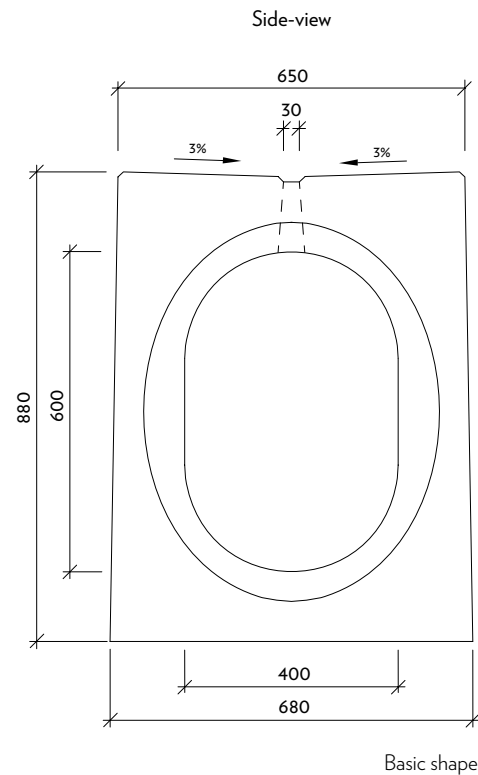
Basic shape

LINE DRAINAGE SYSTEMS

IS08 CSB – PROFILE VI SLOT DRAIN

Name	Order code	Nominal dimensions* mm			Weight kg/pcs
		Height	Width	Length	
Slot drain with interrupted slot	VI-1	880	650/680	4000	3600
Basic gully assembly V0	VI-V0	880	650/680	2000	1526
Gutter gully assembly VU	VI-VU	880	650/680	2000	1526
Basic cleaning segment C0	VI-C0	880	650/680	1000	821
Top cleaning segment CS	VI-CS	880	650/680	1000	821
Spigot end cap	VI-ZU	880	650/680	120	154
Socket end cap	VI-ZZ	880	650/680	120	129

* Nominal dimensions include installation dimensions and/or minimum gap.



WET-CAST / A - NATURAL GREY



CSB-PROFILE VI SLOT DRAIN

WET-CAST

These slot drain segments are suitable for draining of water and small quantities of oil products (drips) from surfaced areas. Profile VI has the largest flow capacity of all our slot drains. Profile VI drains are suitable for locations with extreme rainfall - especially large surfaced areas at airports - and are only available with no internal gradient. Profile VI slot drains are designed for **D400 and F900 class traffic loads**.

The system consists of the following basic components:

- 4 m-long interrupted slot drain, without internal flow gradient

Accessories:

- Complete gully assembly, incl. cast iron grille, gully trap and surge tank
- Cleaning segment incl. cast iron grille
- End cap



CSB-PROFILE VII SLOT DRAIN

WET-CAST

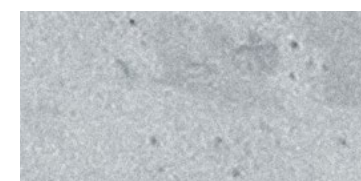
Line drainage segments similar to Profile V slot drains, with an offset slot, which ensures sufficient width on one side to apply traffic lane marking strips to the drain segments. These slot drain segments are especially suitable for tunnels and their surroundings. Unlike Profile V drains, Profile VII ones include a recess for pavement slabs. **Profile VII-4** drains are made with a continuous slot and a 15 cm kerbstone. They are designed **for D400 class traffic load and no transversal vehicle movement.**

LINE DRAINAGE SYSTEMS

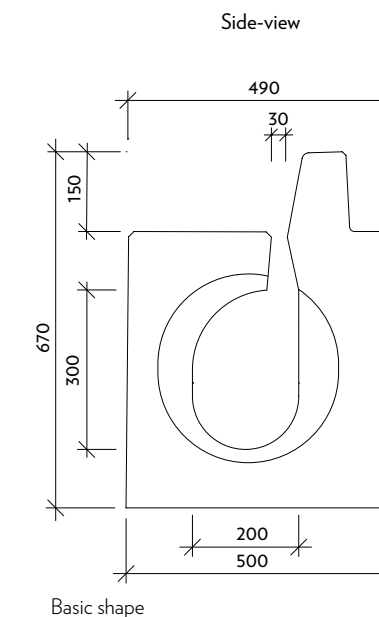
IS09 CSB – PROFILE VII SLOT DRAIN

Name	Order code	Nominal dimensions* mm			Weight
		Height	Width	Length	kg/pcs
Slot drain with continuous slot	VII-0	520	490/500	2000	985
Slot drain without internal gradient with interrupted slot	VII-1	520	490/500	2000	1670
Special 0 cm kerbstone	VII-1-O	520	490/500	1000	-
Special 7 cm kerbstone	VII-2-O	520	490/500	1000	-
Slot drain without internal gradient, with offset slot and 15 cm kerbstone	VII-4	520	490/500	1000	-
Special 15 cm kerbstone	VII-4-O	520	490/500	1000	-
Special rising kerbstone, 15-0 cm	VII-4-O-N				
Special rising kerbstone, 15-0 cm	VII-O-4-N				
Slot drain with continuous slot and 0-15 cm rising kerbstone (left, right)	VII-0-4				
Slot drain with continuous slot and 15-0 cm rising kerbstone (left, right)	VII-4-0				
Fire safety barrier	VII-4-PP				
Basic gully assembly V0	VII-V0				
Gutter gully assembly VU	VII-VU				
Basic cleaning segment C0	VII-C0				
Top cleaning segment CS	VII-CS				
Spigot end cap	VII-ZU	520	490/500	120	-
Socket end cap	VII-ZZ	520	490/500	120	-

* Nominal dimensions include installation dimensions and/or minimum gap.



WET-CAST / A - NATURAL GREY



LINE DRAINAGE SYSTEMS

IS10 CSB – SLOT DRAIN - TRANSITION PIECES

Name	Order code	Nominal dimensions* mm			Weight kg/pcs
		Height	Width	Length	
Transition slot drain segment, PROFILE I - PROFILE II	PP-I-II	500	400/450	1000	409
			496/533		
Transition slot drain segment, PROFILE I - PROFILE IV	PP-I-III	600	400/450	1000	513
			498/533		
Transition slot drain segment, PROFILE I - PROFILE IV	PP-I-IV	700	400/440	10	633
			500/540		

* Nominal dimensions include installation dimensions and/or minimum gap.

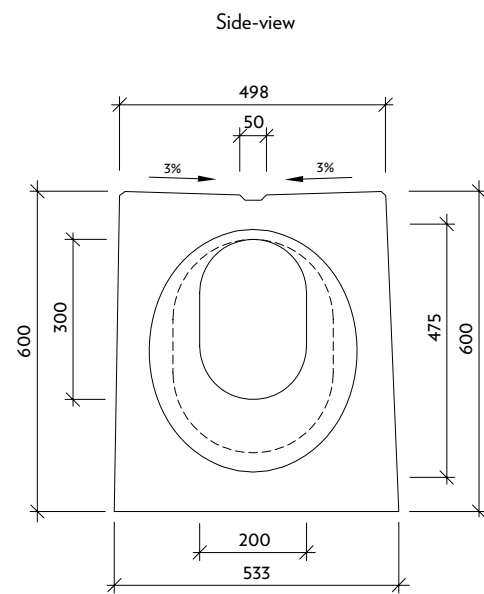


CSB-SLOT DRAIN - TRANSITION PIECES

WET-CAST

When storm sewer connections are few and far between, line drainage may be used in place of an underground storm sewer network. This, however, requires higher-capacity flow profiles. To achieve the required flow rates and keep the costs down, innovative transitional pieces enabling different flow profiles to be connected to each other have been designed.

The drainage line is divided into sections with different flow rates/flow profiles, smaller flow profiles at the beginning and larger ones at the end. Profiles I-II, I-III and I-IV may be connected in this way. This system enables large areas to be drained with a single storm sewer connection while keeping the cost down.



Basic shape



WET-CAST / A - NATURAL GREY



CSB-ROAD BARRIER 50

WET-CAST

Our road barriers are designed for separating traffic lanes, securely dividing roads from pavements and securing traffic islands and roundabouts. Individual segments may be securely fixed to each other. Handrails can also be installed. Accessories such as end pieces and curved segments are available. The bottom contains openings to prevent water from accumulating in front of the barriers.

ROAD BARRIERS

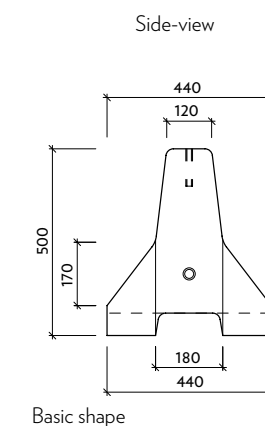
HS01 CSB – ROAD BARRIER 50

Name	Nominal dimensions* mm			Quantity	Weight
	Height	Width	Length	pcs/m	kg/pcs
basic segments	500	440	2000	0,50	525
short segments	500	440	1000	1,00	260
end segments	500	440	2000	0,50	443
90° corner, outside	500	440	495	-	145
R 0.5 curve - 90°	500	440	790	-	119
R 1.0 curve - 90°	500	440	1575	-	330

* Nominal dimensions include installation dimensions and/or minimum gap.



WET-CAST / A - NATURAL GREY

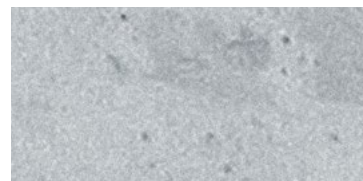
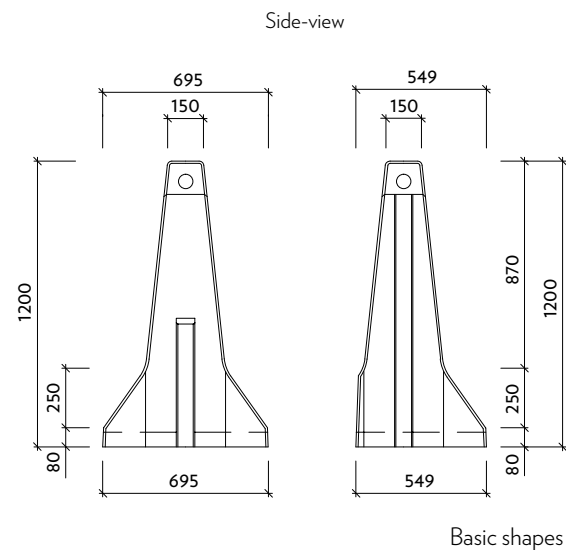


ROAD BARRIERS

HS02/HS03 CSB – ROAD BARRIER 120

Name	Nominal dimensions* mm			Quantity pcs/m	Weight kg/pcs
	Height	Width	Length		
Single side basic unit	1200	549	4000	0,25	3350
Single side short unit	1200	549	2000	0,50	1672
Single side end piece - left	1200	549	4000	0,25	2477
Single side end piece - right	1200	549	4000	0,25	2477
Single side transition piece left (steel/concrete)	1200	549	4000	0,25	3280
Single side transition piece right (concrete/steel)	1200	549	4000	0,25	3280
Single side transition piece left (high to 1 m)	1200	549	4000	0,25	3143
Single side transition piece right (high to 1 m)	1200	549	4000	0,25	3143
Double-sided basic unit	1200	695	4000	0,25	3587
Double-sided short unit	1200	695	2000	0,50	1790
Double-sided end piece - left	1200	695	4000	0,25	2707
Double-sided end piece - right	1200	695	4000	0,25	2707
Double-sided transition piece (steel/concrete)	1200	695	4000	0,25	3520
Double-sided transition piece right (concrete/steel)	1200	695	4000	0,25	3520
Double-sided transition piece left (high to 1 m)	1200	695	4000	0,25	3380
Double-sided transition piece right (high to 1 m)	1200	695 </td <td>4000</td> <td>0,25</td> <td>3380</td>	4000	0,25	3380

* Nominal dimensions include installation dimensions and/or minimum gap.



WET-CAST / A - NATURAL GREY



CSB-ROAD BARRIER 120

WET-CAST

Our road barriers are a modern and highly efficient way of controlling traffic and preventing vehicles from entering the opposite lanes, or leaving the road. Road barrier systems consist of individual prefabricated components, connected by patented articulated joints into a transversal load-bearing catenary (which also uses friction and shear forces at the base of each component).

This reduces the g forces in a vehicle crashing into the barrier. Our barriers may be used as permanent or temporary. They are designed as flexible barriers and are permanently deformed upon impact. This product line includes single- or double-sided barriers with a height of 1,200 mm. These barriers are a road restraint system as defined in ČSN EN 1317-1 and TKP Chapter 11. 1,200 mm-high concrete barriers are currently the best-quality and most-efficient road restraint system.

They are functionally classified as H4, which is the highest restraint level according to ČSN EN 1317-2.



CSB-ROAD BARRIER 100

WET-CAST

Our road barriers are a modern and highly efficient way of controlling traffic and preventing vehicles from entering the opposite lanes, or leaving the road. Road barrier systems consist of individual prefabricated components, connected by patented articulated joints into a transversal load-bearing catenary (which also uses friction and shear forces at the base of each component).

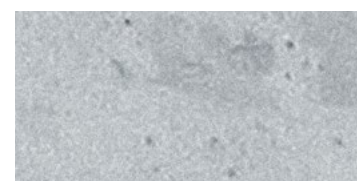
This reduces the g forces in a vehicle crashing into the barrier. Our barriers may be used as permanent or temporary. They are designed as flexible barriers and are permanently deformed upon impact. This product line includes single- or double-sided barriers with a height of 1,000 mm. These barriers are a road restraint system as defined in ČSN EN 1317-1 and TKP Chapter 11. Concrete barriers are currently the best-quality and most-efficient road restraint system. **They are functionally classified as H4 or H3, which is the highest restraint level according to ČSN EN 1317-2.**

ROAD BARRIERS

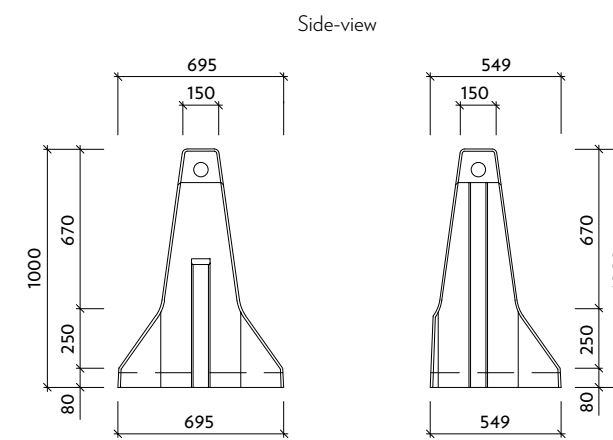
HS04/HS05 CSB – ROAD BARRIER 100

Name	Nominal dimensions* mm			Quantity pcs/m	Weight kg/pcs
	Height	Width	Length		
Single side basic unit	1000	549	4000	0,25	2920
Single side short unit	1000	549	2000	0,50	1457
Single side end piece - left	1000	549	4000	0,25	2343
Single side end piece - right	1000	549	4000	0,25	2343
Single side transition piece left (steel/concrete)	1000	549	4000	0,25	2885
Single side transition piece right (concrete/steel)	1000	549	4000	0,25	2885
Single side transition piece left (high to 1.2 m)	1000	549	4000	0,25	3143
Single side transition piece right (high to 1.2 m)	1000	549	4000	0,25	3143
Single side transition piece left (high to 0.8 m)	1000	549	4000	0,25	2716
Single side transition piece right (high to 0.8 m)	1000	549	4000	0,25	2716
Double-sided basic unit	1000	695	4000	0,25	3158
Double-sided short unit	1000	695	2000	0,50	1575
Double-sided end piece - left	1000	695	4000	0,25	2576
Double-sided end piece - right	1000	695	4000	0,25	2576
Double-sided transition piece (steel/concrete)	1000	695	4000	0,25	3140
Double-sided transition piece right (concrete/steel)	1000	695	4000	0,25	3140
Double-sided transition piece left (high to 1.2 m)	1000	695	4000	0,25	3380
Double-sided transition piece right (high to 1.2 m)	1000	695	4000	0,25	3380
Double-sided transition piece left (high to 0.8 m)	1000	695	4000	0,25	2954
Double-sided transition piece right (high to 0.8 m)	1000	695	4000	0,25	2954

* Nominal dimensions include installation dimensions and/or minimum gap.



WET-CAST / A - NATURAL GREY



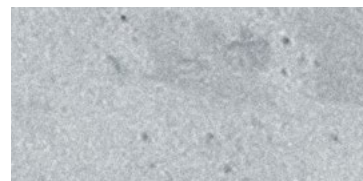
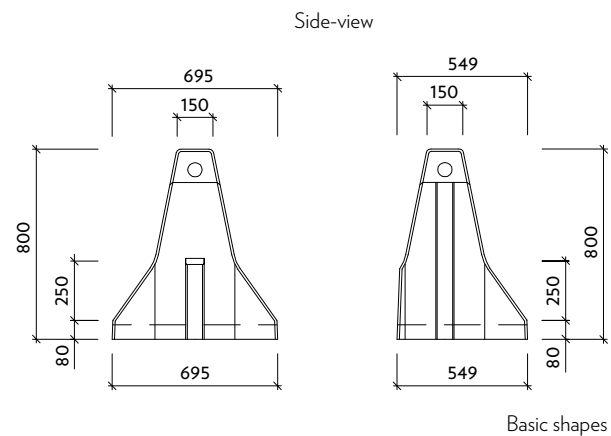
Basic shapes

ROAD BARRIERS

HS06/HS07 CSB – ROAD BARRIER 80

Name	Nominal dimensions* mm			Quantity pcs/m	Weight kg/pcs
	Height	Width	Length		
Single side basic unit	800	549	4000	0,25	2920
Single side short unit	800	549	2000	0,50	1457
Single side end piece - left	800	549	4000	0,25	2343
Single side end piece - right	800	549	4000	0,25	2343
Single side transition piece left (steel/concrete)	800	549	4000	0,25	2885
Single side transition piece right (concrete/steel)	800	549	4000	0,25	2885
Single side transition piece left (high to 1 m)	800	549	4000	0,25	3143
Single side transition piece right (high to 1 m)	800	549	4000	0,25	3143
Double-sided basic unit	800	549	4000	0,25	2716
Double-sided short unit	800	549	2000	0,50	2716
Double-sided end piece - left	800	695	4000	0,25	3158
Double-sided end piece - right	800	695	4000	0,25	1575
Double-sided transition piece (steel/concrete)	800	695	4000	0,25	2576
Double-sided transition piece right (concrete/steel)	800	695	4000	0,25	2576
Double-sided transition piece left (high to 1 m)	800	695	4000	0,25	3140
Double-sided transition piece right (high to 1 m)	800	695	4000	0,25	3140

* Nominal dimensions include installation dimensions and/or minimum gap.



WET-CAST / A - NATURAL GREY



CSB-ROAD BARRIER 80

WET-CAST

Our road barriers are a modern and highly efficient way of controlling traffic and preventing vehicles from entering the opposite lanes, or leaving the road. Road barrier systems consist of individual prefabricated components, connected by patented articulated joints into a transversal load-bearing catenary (which also uses friction and shear forces at the base of each component). This reduces the g forces in a vehicle crashing into the barrier. Our barriers may be used as permanent or temporary.

They are designed as flexible barriers and are permanently deformed upon impact. This product line includes single- or double-sided barriers with a height of 800 mm. These barriers are a road restraint system as defined in ČSN EN 1317-1 and TKP Chapter 11. Concrete barriers are currently the best-quality and most-efficient road restraint system. **They are functionally classified as H3, which is the highest restraint level according to ČSN EN 1317-2.**



CSB-GROUND PLATE FOR ROAD BARRIERS

WET-CAST

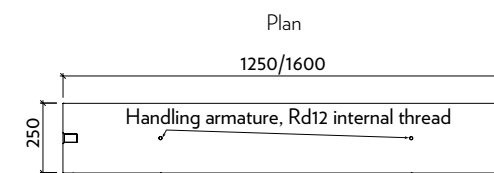
The ground plate is designed to provide a stable base for NEW JERSEY-type concrete road barriers when they are installed on non-compacted surface. The plates are located under the ends of the prefabricated barrier segments and/or under the centre as well. They ensure that the barrier moves out upon impact and thus the proper performance of the restraint system. The upper surface of the ground plates must always be higher than the filler material in between. See TP 139 Concrete Barriers for more information. **This product has XF4 environmental resistance as per ČSN EN 206-1 and TPK 18.**

ROAD BARRIERS

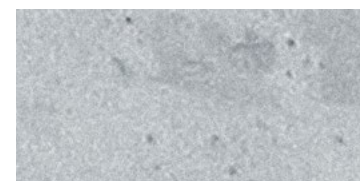
HS08 CSB – GROUND PLATE FOR ROAD BARRIERS

Name	Nominal dimensions* mm			Quantity	Weight
	Height	Width	Length	pcs/m	kg/pcs
Ground plate for road barriers, 125 cm	200	250	1250	0,800	144
Ground plate for road barriers, 160 cm	200	250	1600	0,625	184

* Nominal dimensions include installation dimensions and/or minimum gap.



Basic shape



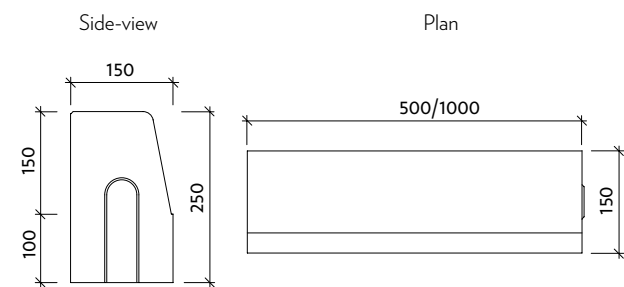
WET-CAST / A - NATURAL GREY

KERBSTONES

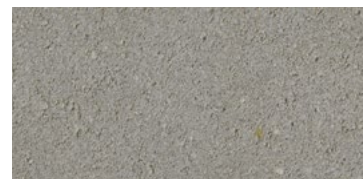
GS01 CSB – H - TYPE ROADSIDE KERBSTONE

Name	Nominal dimensions* mm			Weight	
	Height	Width	Length	kg/pcs	kg/palette**
straight kerbstone segment	300	150	1000	98,9	1509
straight kerbstone segment	250	150	1000	80,6	1476
half segment	250	150	500	40,3	1476
R 0.5 inside curved	250	150	780	60,8	937
R 1.0 inside curved	250	150	780	72,0	1105
R 0.5 outside curved	250	150	780	53,9	834
R 1.0 outside curved	250	150	780	58,6	904
R 2.0 outside curved	250	150	780	61,1	942
90° inside corner	250	150	150	12,4	893
90° outside corner	250	150	150	11,1	802
Dropped kerbstone	150	150	1000	50,0	1225
Rising kerbstone, left 15-25 cm	250	150	1000	66,0	553
Rising kerbstone, right, 25-15 cm	250	150	1000	66,0	553

* Nominal dimensions include installation dimensions and/or minimum gap. ** Palette weight includes the weight of the pallet itself.



Basic shape



STANDARD / A - NATURAL GRAY



CSB-H-TYPE ROADSIDE KERBSTONE

STANDARD

This universal roadside kerbstone is intended for road infrastructure projects requiring high quality and long service life of all structures and materials. It is commonly used along ring roads, thoroughfares and municipal roads. A wide range of accessories is available for the H 25 line, such as curved and corner pieces, dropped kerbs and rising segments to create perfect crossings.



CSB- T - TYPE ROADSIDE KERBSTONE

STANDARD

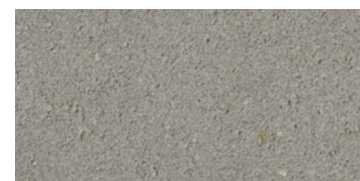
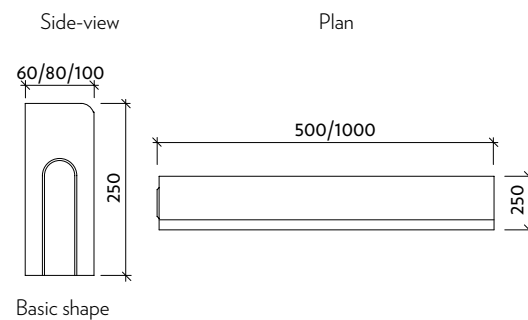
A widely-used kerbstone, designed for municipal and local roads. It is installed with 3 mm gaps without mortar and produced in three different widths. Curved segments are also available.

KERBSTONES

GS02 CSB - T - TYPE ROADSIDE KERBSTONE

Name	Nominal dimensions* mm			Sector	Weight	
	Height	Width	Length		kg/pcs	kg/palette**
Straight 6 cm-wide kerbstone	200	60	1000	-	27,7	1106
Straight 8 cm-wide kerbstone	250	80	1000	-	46,7	1426
Straight 8 cm-wide kerbstone, half-length	250	80	500	-	23,3	1423
Straight 10 cm-wide kerbstone	250	100	1000	-	58,3	1600
R 0,5 curved kerb, 8 cm-wide	250	80	780	sector 90°	34,0	433
R 1,0 curved kerb, 8 cm-wide	250	80	780	sector 45°	33,0	520

* Nominal dimensions include installation dimensions and/or minimum gap. ** Palette weight includes the weight of the pallet itself.



STANDARD / A - NATURAL GRAY

KERBSTONES

GS06 CSB – KO - TYPE ROADSIDE KERBSTONE

Name	Nominal dimensions* mm			Weight	
	Height	Width	Length	kg/pcs	kg/palette**
Straight segment	195	300	600	67	1097
half segment	195	300	300	34	569
R 0.5 outside curved	195	300	262	20	265
R 1 outside curved	195	300	514	49	907
R 0.5 inside curved	195	300	262	39	727
R 1 inside curved	195	300	524	69	646
R 0.6 end curved	195	600	942	108	457
R 0.75 end curved	195	750	1178	175	725
Rising kerbstone, 15, right, 250-195	250	150-300	600	63	-
Rising kerbstone, 15, left, 195-250	195	150-300	600	63	-

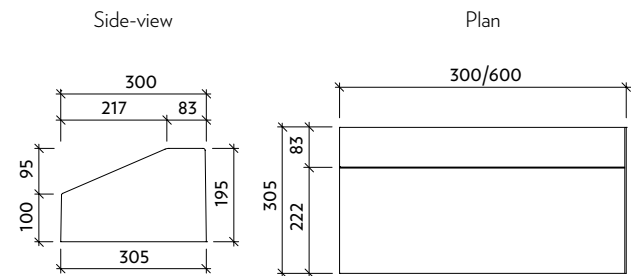
* Nominal dimensions include installation dimensions and/or minimum gap. ** Palette weight includes the weight of the pallet itself.



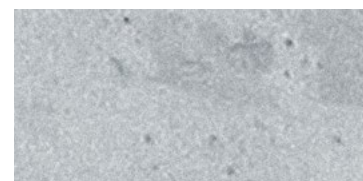
CSB-KO-TYPE ROADSIDE KERBSTONE

WET-CAST

The KO kerbstones are designed for roundabouts and traffic/dividing islands. Apart from their aesthetics and functionality, their specific shape has a significant influence on the road safety. Compared to regular kerbstones, the KO kerbs have superior resistance to aggressive environment and salts.



Basic shape



WET-CAST / A - NATURAL GREY



CSB-HK - TYPE ROADSIDE KERBSTONE

WET-CAST

Special bus stop kerbstones featuring Kassel-type tyre protection profile. These metre-long prefabricated segments can be installed at any bus-stop to improve passenger experience and provide wheelchair access. The components have a high resistance to aggressive environments.

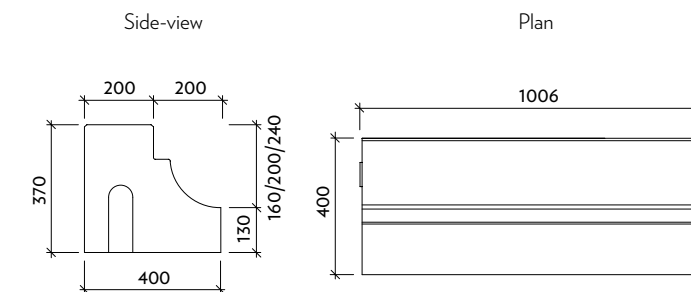
All HK-type kerbstone segments have anti-skid surface treatment for improved passenger safety.

KERBSTONES

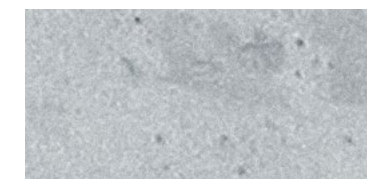
GS07 CSB – HK - TYPE ROADSIDE KERBSTONE

Name	Nominal dimensions* mm			Weight	
	Height	Width	Length	kg/pcs	kg/palette**
Straight segment	370	400	1006	259	1579
Rising segment 31-37 cm (left/right)	310/370	400	1006	245	-
Rising segment 25-31 cm (left/right)	250/310	400	1006	227	-
Rising segment 19-25 cm (left/right)	190/250	400	1006	192	-
Rising segment 13-19 cm (left/right)	130/190	400	1006	150	-
Rising segment 25-31 cm (left/right)	250/310	150-400	1006	164	-
Straight segment	330	400	1006	248	1513
Rising segment 31-33 cm (left/right)	310/330	400	1006	244	-
Straight segment	290	400	1006	225	1375
Rising segment 25-29 cm (left/right)	250/290	150-400	1006	151	-
Drained segment	370	400	1006	254	-
Drained segment	330	400	1006	235	-
Drained segment	290	400	1006	217	-
Drained segment - accessories	-	-	-	-	-

* Nominal dimensions include installation dimensions and/or minimum gap. ** Palette weight includes the weight of the pallet itself.



Basic shape



WET-CAST / A - NATURAL GREY

KERBSTONES

GS07 CSB – KASSEL KERB

Name	Nominal dimensions* mm			Weight	
	Height	Width	Length	kg/pcs	kg/palette**
Kassel kerb	80	250	500	22.4	1369

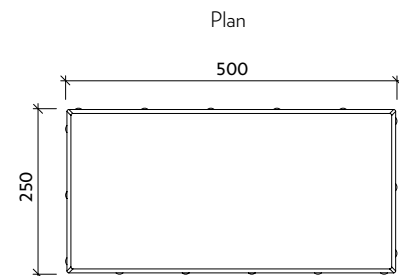
* Nominal dimensions include installation dimensions and/or minimum gap. ** Palette weight includes the weight of the pallet itself.



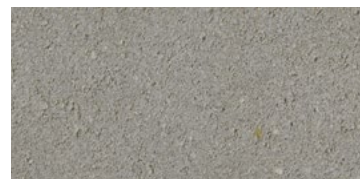
CSB-KASSEL KERB

STANDARD

Single-piece pavers designed for large areas, or for dividing paved areas. It is also used in combination with deeper channel blocks when building channels, or along the edges of asphalted roads, where it acts as a border element and divides the asphalt from the kerb.



Basic shape



STANDARD / A - NATURAL GRAY



CSB-CHANNEL BLOCKS

STANDARD / WET-CAST

Multi-purpose channel blocks made of high-strength vibro-press concrete. Special mix composition ensures high resistance to frost and chemical defrosters.

- **Special concrete mix:**
 - tensile strength
 - resistance to frost and chemical defrosting agents
 - high aesthetic quality

Individual segments are laid next to each other and the gaps are filled with high-strength cement mortar. The base layer is compacted gravel, or concrete screed.

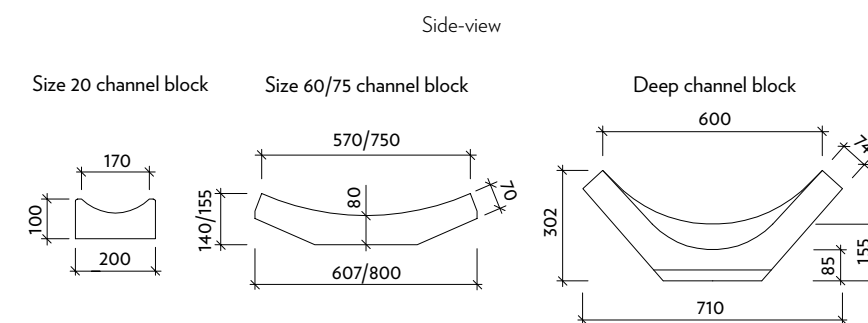
The deep channel is wet-cast and intended for draining water from steep inclines around roads, motorways and railways.

DRAINAGE SYSTEMS

GS05 CSB – CHANNEL BLOCKS

Name	Nominal dimensions* mm			Weight	
	Height	Width	Length	kg/pcs	kg/palette**
Size 20 channel block	100	200	250	8,9	1200
Size 60 channel block	140	570	330	37,6	1229
Size 75 channel block	155	750	330	48,2	1182
Deep channel block	85-155	600	490	94,0	589

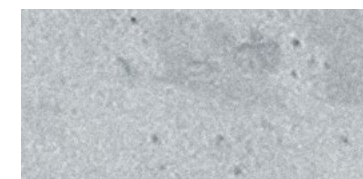
* Nominal dimensions include installation dimensions and/or minimum gap. ** Palette weight includes the weight of the pallet itself.



Designs



STANDARD / A - NATURAL GRAY



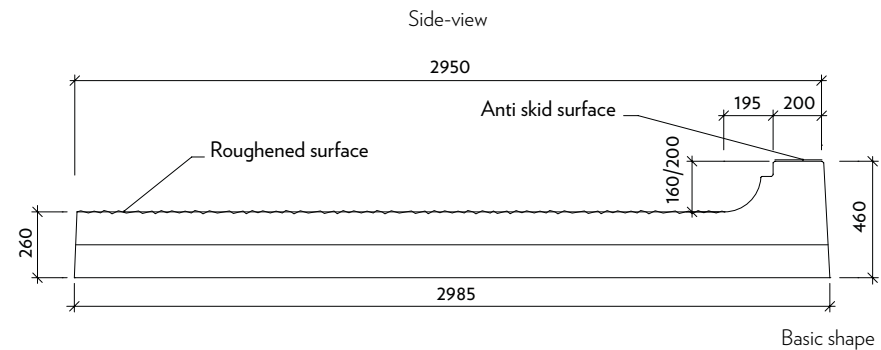
WET-CAST / A - NATURAL GREY

PREFABRICATED BUS STOP PANELS

KS01 CSB – PREFABRICATED BUS STOP PANELS

Name	Nominal dimensions* mm				Weight kg/pcs
	Kerb height	Panel height	Width	Length	
Basic bus stop panel, 20 cm kerb	200	460	2950	2000	3865,8
Dropped edge (first) bus stop panel with 20 cm kerb	200	460	2950	2000	3999,2
Dropped edge (last) bus stop panel with 20 cm kerb	200	460	2950	2000	3732,8
Basic bus stop panel with 20 cm kerb and drainage channel	200	460	2950	2000	3972,9
Basic bus stop panel, 16 cm kerb	160	420	2950	2000	3829,4
Dropped edge (first) bus stop panel with 16 cm kerb	160	420	2950	2000	3962,8
Dropped edge (last) bus stop panel with 16 cm kerb	160	420	2950	2000	3696,4
Basic bus stop panel with 16 cm kerb and drainage channel	160	420	2950	2000	3685,9
Angle slab 1	-	100	750	2560	515,0
Angle slab 2	-	100	750	2915	289,0
Angle slab 3	-	100	750	2000	312,0
Angle slab 4	-	100	750	2150	335,0
Angle slab 5	-	100	750	3380	515,0

* Nominal dimensions include installation dimensions and/or minimum gap. ** Palette weight includes the weight of the pallet itself.



WET-CAST / A - NATURAL GREY



CSB– PREFABRICATED BUS STOP PANELS

WET-CAST

These patented bus stop panels are designed for use in constructing single-level bus and trolleybus stops. The same prefabricated panel section provides the bus/trolleybus stop bay, the special curb and the pavement on the same level as the bus floor.

Bus stops made of these panels and low-floor public transport vehicles provide same-level access (in keeping with the Ministry of Local Development's Regulation no. 398/2009).

SEWER SYSTEMS AND STREET GULLIES

LS01 CSB – TAPER TOPS AND COVER SLABS DN 1,000, 120 mm thick

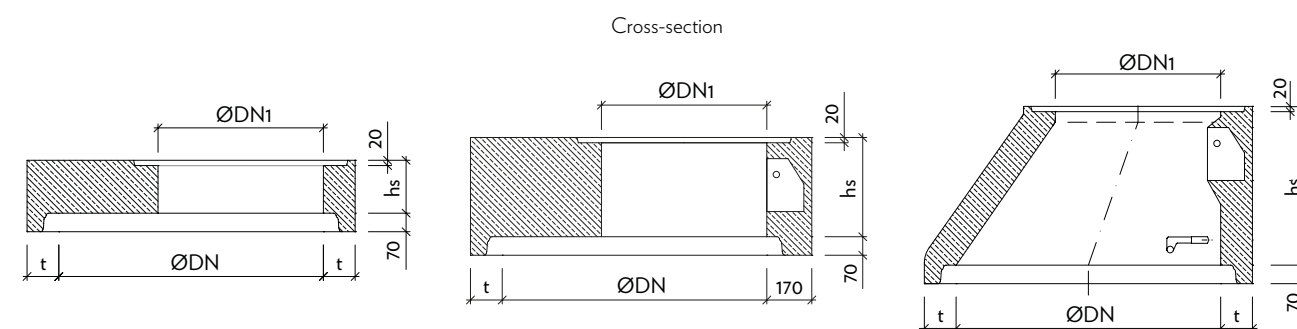
Name	Order code	DN	Dimensions* mm		Weight
			Height	t	kg/pcs
Taper top 1,000/625 with step iron and pocket, 120 mm thick	TBR-Q.1 1000x625/600/120 SPK	1000/625	600	120	550
Cover slab 1,000/625, D400	TZK-Q.1 1000x625/200 D400	1000/625	200	120	484
Cover slab 1,000/625, D400, pocketed step iron	TZK-Q.1 1000x625/375 SPK D400	1000/625	375	120	855
Cover slab 1,000/800, D400	TZK-Q.1 1000x800/200 D400	1000/800	200	120	378
Cover slab 1,000/625, B125	TZK-Q.1 1000x625/200 B125	1000/625	200	120	484

* Nominal dimensions include installation dimensions and/or minimum gap.

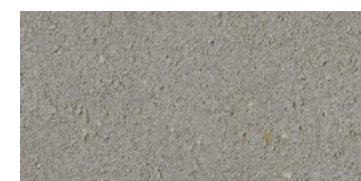
CSB-TAPER TOPS AND COVER SLABS DN 1,000, 120 mm thick

STANDARD/WET-CAST

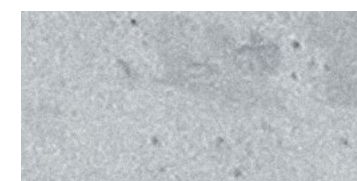
Taper tops and cover slabs are used on top of inspection shafts to reduce their dimensions to the size of the manhole cover. Make up pieces are then used to bring the actual cover to the exact level of the surface, of the cover is installed directly on the cover slab. The manholes are used to access sewage inspection shafts for inspection, maintenance and/or air-bleeding. Taper tops include step irons and pocketed step irons (in plastic casing).



Example of designs



STANDARD / A - NATURAL GRAY



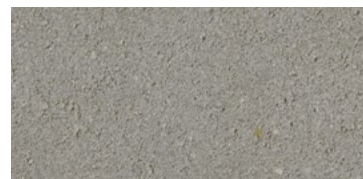
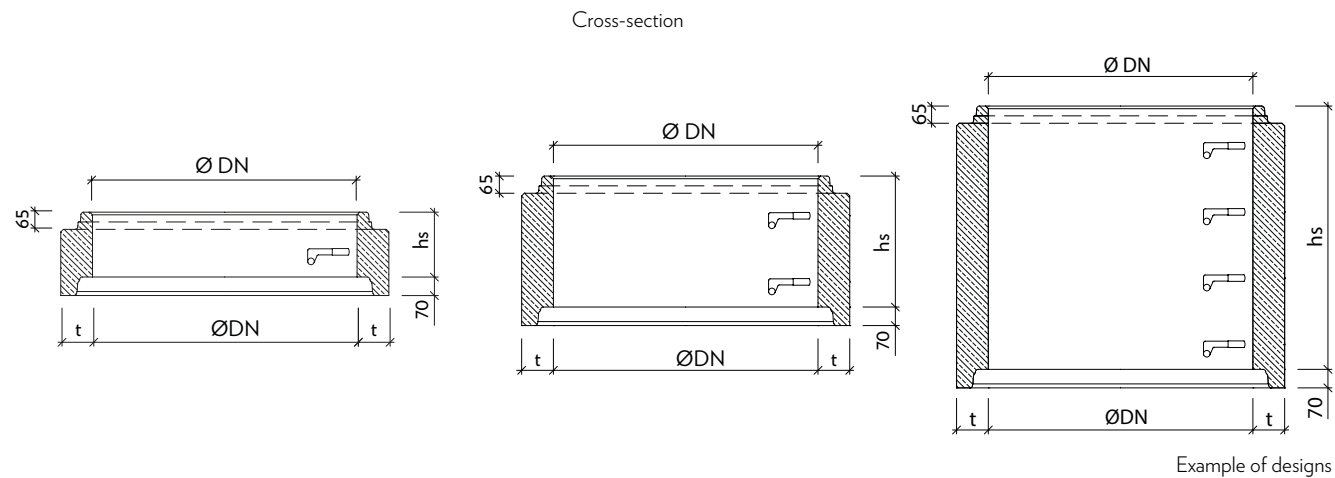
WET-CAST / A - NATURAL GREY

SEWER SYSTEMS AND STREET GULLIES

LS02 CSB – TAPER TOPS AND COVER SLABS, DN 1,000, 120 mm thick

Name	Order code	DN	Dimensions* mm		Weight
			Height	t	kg/pcs
Shaft ring with step irons DN 1,000, height 250, thickness 120 mm	TBS-Q.1 1000/250/120 SP	1000	250	120	255
Shaft ring with step irons DN 1,000, height 500, thickness 120 mm	TBS-Q.1 1000/500/120 SP	1000	500	120	510
Shaft ring with step irons DN 1,000, height 1,000, thickness 120 mm	TBS-Q.1 1000/1000/120 SP	1000	1000	120	1020

* Nominal dimensions include installation dimensions and/or minimum gap.



STANDARD / A - NATURAL GRAY

CSB-TAPER TOPS AND COVER SLABS, DN 1,000, 120 mm thick

STANDARD

Shaft rings are round cylindrical components with spigot/socket joints, which can be fitted with elastomer wedged seal rings (installed into grooves on spigots). The shafts are used to access sewage lines for inspection, maintenance and/or air-bleeding. The shaft rings include step irons (in plastic casing).

NEW PRODUCT

SEWER SYSTEMS AND STREET GULLIES

LS03 CSB – SEWER SHAFT RINGS, TAPER TOPS AND COVER SLABS, DN 1,000, 120 mm thick, INTEGRO integrated seals

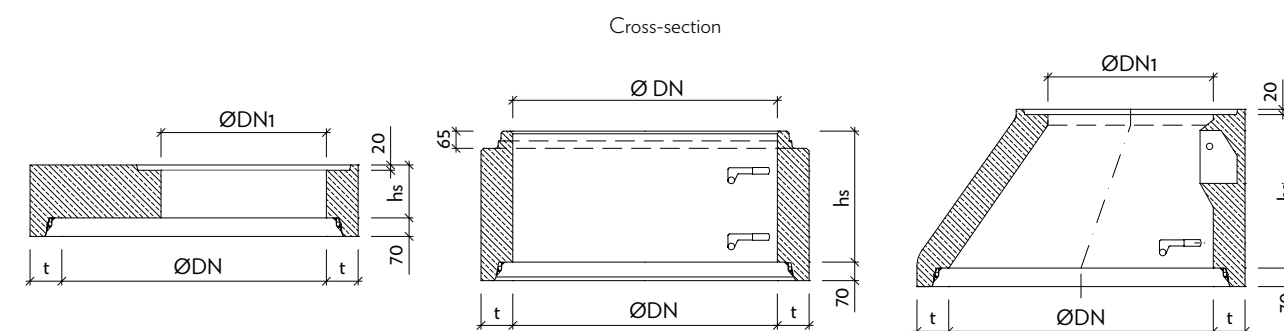
Name	Order code	DN	Dimensions* mm		Weight kg/pcs
			Height	t	
Taper top 1000/625 with pocketed step iron, t 120 mm, integrated seal NEW PRODUCT!	TBR-Q.1 1000x625/600/120 SPK INTEGRO	1000/625	600	120	549
Cover slab 1000/625, D400 loading class, integrated seal NEW PRODUCT!	TZK-Q.1 1000x625/200 D400 INTEGRO	1000/625	200	120	483
Shaft ring, with step irons, DN 1,000, height 250, thickness 120 mm, integrated seal NEW PRODUCT!	TBS-Q.1 1000/250/120 SP INTEGRO	1000	250	120	254
Shaft ring, with step irons, DN 1,000, height 500, thickness 120 mm, integrated seal NEW PRODUCT!	TBS-Q.1 1000/500/120 SP INTEGRO	1000	500	120	509
Shaft ring, with step irons, DN 1,000, height 1,000, thickness 120 mm, integrated seal NEW PRODUCT!	TBS-Q.1 1000/1000/120 SP INTEGRO	1000	1000	120	1019

* Nominal dimensions include installation dimensions and/or minimum gap.

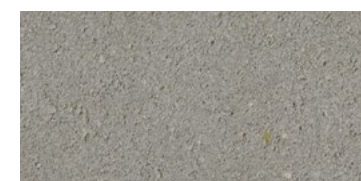
CSB-SEWER SHAFT RINGS, TAPER TOPS AND COVER SLABS, DN 1,000, 120 mm thick, INTEGRO integrated seals

STANDARD/WET-CAST

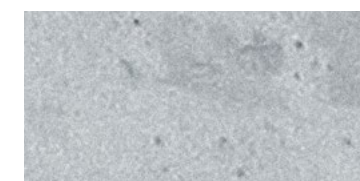
These shaft rings are round cylindrical components with spigot/socket joints, which include integral elastomer seal rings (installed into sockets during production). The shafts are used to access sewage lines for inspection, maintenance and/or air-bleeding. Shaft rings with integrated seals include step irons (in plastic casing).



Example of designs



STANDARD / A - NATURAL GRAY



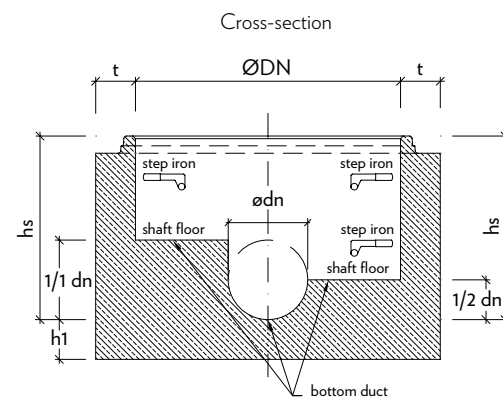
WET-CAST / A - NATURAL GREY

SEWER SYSTEMS AND STREET GULLIES

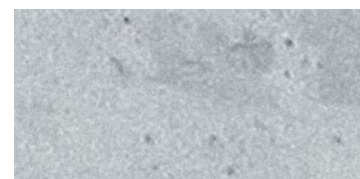
LS09 CSB – CAPITAN COMPACT SINGLE-PIECE BASE SLAB

Name	Order code	DN	DN výtoku	Dimensions* mm		Weight kg/pcs
				Height	t	
CAPITAN base slab, DN 1,000, 250 mm outlet, height 500, thickness 150 mm	TBZ-Q.1 CAPITAN 250/500	1000	250	500	150	1270
CAPITAN base slab, DN 1,000, 300 mm outlet, height 600, thickness 150 mm	TBZ-Q.1 CAPITAN 300/600	1000	300	600	150	1405
CAPITAN base slab, DN 1,000, 400 mm outlet, height 800, thickness 170 mm	TBZ-Q.1 CAPITAN 400/800	1000	400	800	170	1830
CAPITAN base slab, DN 1,000, 500 mm outlet, height 1,000, thickness 225 mm	TBZ-Q.1 CAPITAN 500/1000	1000	500	1000	225	2695
CAPITAN base slab, DN 1,000, 600 mm outlet, height 1,000, thickness 225 mm	TBZ-Q.1 CAPITAN 600/1000	1000	600	1000	225	2595
CAPITAN base slab, DN 1,200, 800 mm outlet, height 1,200, thickness 250 mm	TBZ-Q.1 CAPITAN 800/1200	1200	800	1200	250	4125
CAPITAN base slab, DN 1,000, 250 mm outlet, height 500, thickness 150 mm, bottom duct 1/1	TBZ-Q.1 CAPITAN 250/500 bottom duct 1/1	1000	250	500	150	1430
CAPITAN base slab, DN 1,000, 300 mm outlet, height 600, thickness 150 mm, bottom duct 1/1	TBZ-Q.1 CAPITAN 300/600 bottom duct 1/1	1000	300	600	150	1580
CAPITAN base slab, DN 1,000, 400 mm outlet, height 800, thickness 170 mm, bottom duct 1/1	TBZ-Q.1 CAPITAN 400/800 bottom duct 1/1	1000	400	800	170	2020
CAPITAN base slab, DN 1,000, 500 mm outlet, height 1,000, thickness 225 mm, bottom duct 1/1	TBZ-Q.1 CAPITAN 500/1000 bottom duct 1/1	1000	500	1000	225	2870
CAPITAN base slab, DN 1,000, 600 mm outlet, height 1,000, thickness 225 mm, bottom duct 1/1	TBZ-Q.1 CAPITAN 600/1000 bottom duct 1/1	1000	600	1000	225	3230
CAPITAN base slab, DN 1,200, 800 mm outlet, height 1,200, thickness 250 mm, bottom duct 1/1	TBZ-Q.1 CAPITAN 800/1200 bottom duct 1/1	1200	800	1200	250	4575

* Nominal dimensions include installation dimensions and/or minimum gap.



Example of designs



WET-CAST / A - NATURAL GREY

CSB-CAPITAN COMPACT SINGLE-PIECE BASE SLAB

WET-CAST

A base slab is a prefabricated component with a specially shaped bottom – sewage duct, inlets, or channel inserts for sewage connectors. They are produced as single-piece monolithic components. The basic version has a bottom duct of one half of the outlet DN, base slabs with sewer ducts of the same DN as the outlets can also be supplied. Basic assembly enables the manhole cover to be angled by up to 10 % from the horizontal axis of the shaft. For larger angles, base slabs with thicker walls are recommended. The sewer duct at the bottom is made of concrete, but basalt or plastic lining can also be specified. A stop gate may be installed into the base slab when required. The shafts are used to access sewage lines for inspection, maintenance and/or air-bleeding.

The base slab includes on step iron with plastic coating.



CSB-MAKE UP PIECES

STANDARD

Make up pieces do not have a connection a step iron and are used to level the top surface of the shaft cover slab with the surrounding surface and/or install the frame and manhole cover.

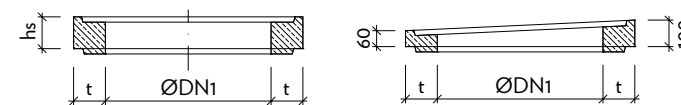
SEWER SYSTEMS AND STREET GULLIES

LS16 CSB – MAKE UP PIECES

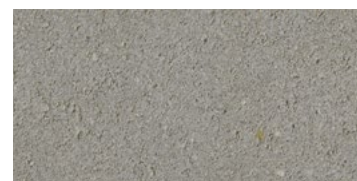
Name	Order code	DN	Dimensions* mm		Quantity ks/pallet**	Weight kg/pcs
			Height	t		
Make up piece, 40 mm height, for shafts, 120 mm thickness	TBW-Q.1 40/600/120	625	40	120	17	28
Make up piece, 60 mm height, for shafts, 120 mm thickness	TBW-Q.1 60/600/120	625	60	120	18	40
Make up piece, 80 mm height, for shafts, 120 mm thickness	TBW-Q.1 80/600/120	625	80	120	14	53
Make up piece, 100 mm height, for shafts, 120 mm thickness	TBW-Q.1 100/600/120	625	100	120	11	68
Make up piece, 120 mm height, for shafts, 120 mm thickness	TBW-Q.1 120/600/120	625	120	120	9	81
Make up piece, 60/100 mm height, for shafts, 120 mm thickness	TBW-Q.1 60-100/600/120	625	60/100	120	10	53

* Nominal dimensions include installation dimensions and/or minimum gap.

Cross-section



Example of designs



STANDARD / A - NATURAL GRAY

SEWER SYSTEMS AND STREET GULLIES

LS17 CSB – MANHOLE COVERS - CAST IRON

LS18 CSB – MANHOLE COVERS - DUCTILE IRON

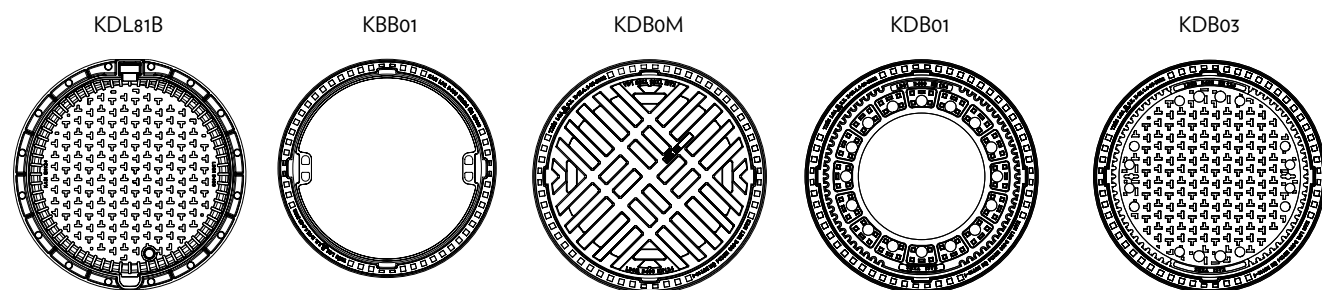
Name	Order code	DN	Dimensions*mm		Quantity	Weight
			Height	ks/pallet**	kg/pcs	
A15 BEGU manhole cover, no ventilation, BEGU frame	KA01	605	75	16	72	
B125 BEGU manhole cover, no ventilation, BEGU frame	KB01	610	125	12	99	
B125 BEGU manhole cover, ventilation, BEGU frame	KB02	610	125	12	92	
D400 BEGU manhole cover, ventilation, BEGU frame	KDB01	610	160	8	164	
D400 BEGU manhole cover, no ventilation, BEGU frame	KDB02	610	160	8	156	
D400 GUSS manhole cover, ventilation, BEGU frame	KDB03	610	160	8	156	
D400 GIUSS manhole cover, no ventilation, BEGU frame	KDB05	610	160	8	162	
D400 GIUSS manhole cover/gully grating, BEGU frame	KDB2M	610	160	8	163	
D400 Europa 8 manhole cover, GGG, ventilation	KDL81	605	100	20	58	
D400 Europa 8 manhole cover, GGG, no ventilation	KDL82	605	100	20	57	

* Nominal dimensions include installation dimensions and/or minimum gap.



CSB-MANHOLE COVERS - CAST IRON, MANHOLE COVERS - DUCTILE IRON

Manhole covers are used to close shaft access holes. There are several types, depending on material/materials used in production.



Example of designs



CSB-STREET GULLIES – CONCRETE COMPONENTS

STANDARD/WET-CAST

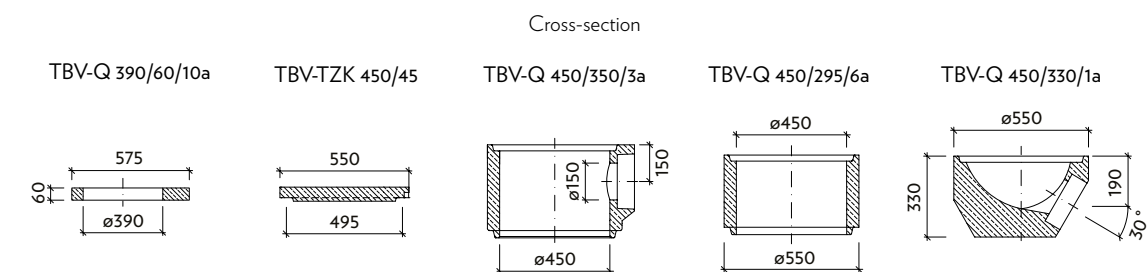
Street gullies are intended to allow ingress of rainwater into storm sewers at specified points. They are designed for DN 450 mm openings and have several system components. Combining these system components, you can create a street gully with direct outlet, with a gully trap, or a flow-through gully. The level of the gully itself depends on the components used and the diameter of the outlet (DN 150 or 200 mm). A shaft insert for plastic sewer pipes can also be installed.

SEWER SYSTEMS AND STREET GULLIES

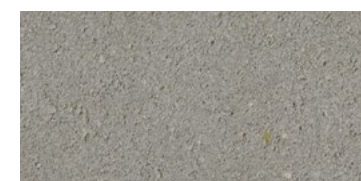
LS21 CSB – STREET GULLIES – CONCRETE COMPONENTS

Name	Order code	DN	Outlet DN	Dimensions* mm		Quantity ks/pallette	Weight kg/pcs
				Height	t		
Street gully - cover slab	TBV - TZK 450/50	450/550	-	50	50	30	34
Street gully - 10a make up piece	TBV-Q 450/60 10a	390	-	60	50	15	23
Street gully - 1a base slab with DN 150 outlet	TBV-Q 450/330/1a DN 150	450	150	330	50	16	78
Street gully - 1a base slab with DN 150 PVC outlet	TBV-Q 450/330/1a PVC DN 150	450	150	330	50	16	83
Street gully - 1d base slab with DN 200 outlet	TBV-Q 450/380/1d DN 200	450	200	380	50	12	101
Street gully - 1d base slab with DN 200 PVC outlet	TBV-Q 450/380/1d PVC DN 200	450	200	380	50	12	96
Street gully - 2a base slab with no outlet	TBV-Q 450/300/2a	450	-	300	50	16	69
Street gully - 3a base slab with DN 150 drain	TBV-Q 450/350/3a DN 150	450	150	350	50	16	73
Street gully - 3a base slab with DN 150 PVC drain	TBV-Q 450/350/3a PVC DN 150	450	150	350	50	16	75
Street gully - 3d base slab with DN 200 drain	TBV-Q 450/450/3d DN 200	450	200	450	50	8	73
Street gully - 3d base slab with DN 200 PVC drain	TBV-Q 450/450/3d PVC DN 200	450	200	450	50	8	103
Street gully - 3z siphon with DN 150 drain	TBV-Q 450/570/3z DN 150	450	150	570	50	4	175
Street gully - 3z siphon with DN 150 PVC drain	TBV-Q 450/570/3z PVC DN 150	450	150	570	50	8	175
Street gully - 3z siphon with DN 200 drain	TBV-Q 450/570/3z DN 200	450	200	570	50	4	195
Street gully - 3z siphon with DN 200 PVC drain	TBV-Q 450/570/3z PVC DN 200	450	200	570	50	8	195
Street gully - 5c upper ring	TBV-Q 450/195/5c	450	-	195	50	20	38
Street gully - 5b upper ring	TBV-Q 450/295/5b	450	-	295	50	16	57
Street gully - 5d upper ring	TBV-Q 450/570/5d	450	-	570	50	8	105
Street gully - 6b middle ring	TBV-Q 450/195/6b	450	-	195	50	24	38
Street gully - 6a middle ring	TBV-Q 450/295/6a	450	-	295	50	16	58
Street gully - 6d middle ring	TBV-Q 450/570/6d	450	-	570	50	8	105

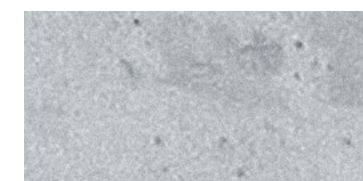
* Nominal dimensions include installation dimensions and/or minimum gap.



Example of designs



STANDARD / A - NATURAL GRAY



WET-CAST / A - NATURAL GREY

SEWER SYSTEMS AND STREET GULLIES

LS19 CSB – FRAMES AND GRATINGS LS20 CSB – GULLY TRAPS

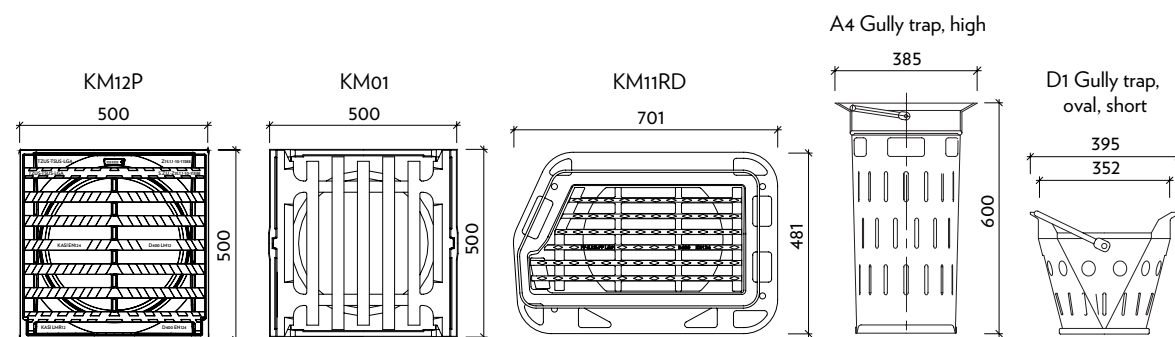
Name	Order code	DN	Dimensions*mm		Quantity	Weight
			Height	t	ks/ pallette	kg/pcs
Street gully - frame and grate, D400, 500x500, with hinges - ductile iron	KM12P	500x500	160	-	16	68
Street gully - frame and grate, D400 - polygonal (motorway, Curb-King), 300x500, hinge - ductile iron	KM11RD	300x500	116/162	-	20	50
Street gully - frame and grate, D400, 500x500, cast iron	KM01	500x500	160	-	12	105
Street gully - frame and grate, C250, 500x500, with hinges - ductile iron	KM13P	500x500	160	-	16	65
Street gully - frame and grate, D400, 500x500, plastic	M508D	500x500	160	-	16	60
Street gully - frame and grate, C250, 500x500, plastic	M655C	500x500	160	-	-	61
Street gully - frame and grate, D400, 300x500, with hinges - ductile iron	KM18P	300x500	125	-	24	37
Street gully - kerbstone inlet grate B125 - Radbuza, with lock	PV3023-radbuza	500x500	192	-	1	90
Street gully - gully trap, galvanised, height 250	B1	450	250	-	60	2,5
Street gully - gully trap, galvanised, height 600	A4	450	600	-	36	4
Street gully - gully trap, oval, galvanised, height 325	D1	450	325	-	52	3
Street gully - gully trap, oval, galvanised, height 600	C3	450	600	-	40	4

* Nominal dimensions include installation dimensions and/or minimum gap.



CSB-FRAMES AND GRATINGS, GULLY TRAPS

Street gully frames and gratings ensure draining of rainwater from street/road surfaces. Frames and grating are made of different materials to provide varying load capacities. Gully traps are designed to collect debris which enters the gully shaft through the grating. They are made of galvanised sheeting.



Example of designs



CSB-WELL AND DRAINAGE SHAFT BASE SLABS, DN 800, 90 mm thick

STANDARD

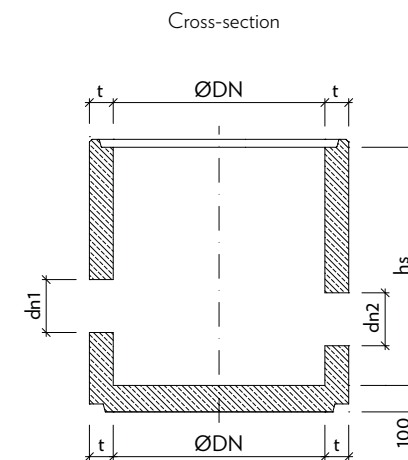
The shaft/well base slabs have flat bottoms without sewer ducts and may have openings for outlets. The shafts are used to access sewage lines for inspection, maintenance and/or air-bleeding. The base slabs do not include step irons, but do include mounting points (rawplugs) for them.

SEWER SYSTEMS AND STREET GULLIES

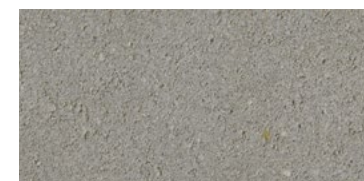
LS12 CSB – WELL AND DRAINAGE SHAFT BASE SLABS, DN 800, 90 mm thick

Name	Order code	DN	Dimensions*mm		Weight
			Height	t	kg/pcs
Shaft base slab, DN 800, 400 mm high, 90 mm thick	CSB - TBZ-Q.2 800/400	800	400	90	768
Shaft base slab, DN 800, 900 mm high, 90 mm thick	CSB - TBZ-Q.2 800/900	800	900	90	478

* Nominal dimensions include installation dimensions and/or minimum gap.



Example of design



STANDARD / A - NATURAL GRAY

SEWER SYSTEMS AND STREET GULLIES

LS11 CSB – WELL AND DRAINAGE SHAFT RINGS DN 800, 90 mm thick

Name	Order code	DN	Dimensions*mm		Quantity	Weight
			Height	t	ks/ pallette	kg/pcs
Shaft ring, no step irons DN 800, height 250, thickness 90 mm	TBS-Q.2 800/250/90	800	250	90	4	145
Shaft ring, no step irons DN 800, height 500, thickness 90 mm	TBS-Q.2 800/500/90	800	500	90	2	290
Shaft ring, no step irons DN 800, height 1,000, thickness 90 mm	TBS-Q.2 800/1000/90	800	1000	90	1	580
Shaft ring with step irons DN 800, height 250, thickness 90 mm, step iron	TBS-Q.2 800/250/90 SP	800	250	90	4	147
Shaft ring with step irons DN 800, height 500, thickness 90 mm, step iron	TBS-Q.2 800/500/90 SP	800	500	90	2	294
Shaft ring with step irons DN 800, height 1,000, thickness 90 mm, step iron	TBS-Q.2 800/1000/90 SP	800	1000	90	1	588

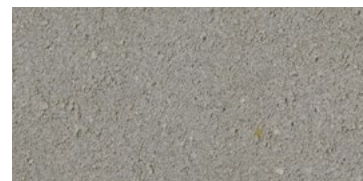
* Nominal dimensions include installation dimensions and/or minimum gap.



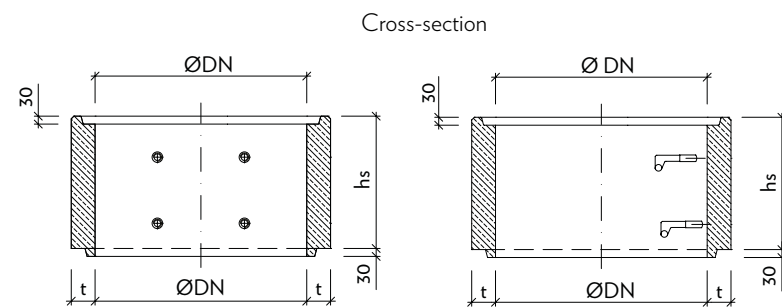
CSB-WELL AND DRAINAGE SHAFT RINGS DN 800, 90 mm thick

STANDARD

These shaft rings are round cylindrical components with spigot/socket joints. The shafts are used to access sewage lines for inspection, maintenance and/or air-bleeding. The shaft rings include rawplugs for step irons and are supplied with or without the irons. The step irons are made of steel and have plastic coating. The spigot is on the bottom end and enables ballast water to enter the shaft.



STANDARD / A - NATURAL GRAY



Example of design

SEWER SYSTEMS AND STREET GULLIES

LS10 CSB – TAPER TOPS AND COVER SLABS DN 800,
90 mm thick

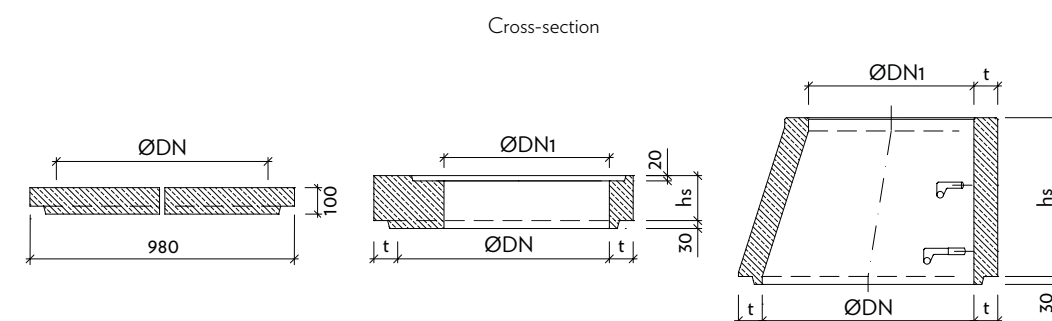
Name	Order code	DN	Dimensions* mm			Quantity	Weight
			Height	t	ks/ pallette	kg/pcs	
Taper top 800/625, with step irons, 90 mm thick, step iron	TBR-Q.2 800x625/600/90 SP	800/625	600	90	-	380	
Cover slab 800/625, D400 loading class	TZK-Q.2 800x625/200 D400	800/626	200	90	-	226	
Cover slab 800/625, B125 loading class	TZK-Q.2 800x625/100 B125	800/625	100	90	-	113	
Cover slab 800/625, A15 loading class, half and half	TZK-Q.2 800/100 A15 half and half	800/980	100	90	3	192	

* Nominal dimensions include installation dimensions and/or minimum gap.

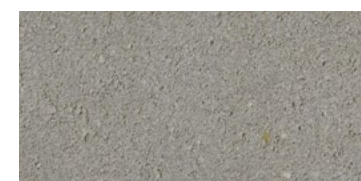
CSB-TAPER TOPS AND COVER SLABS
DN 800, 90 mm thick

STANDARD/WET-CAST

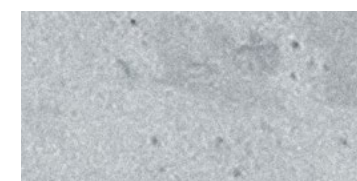
These shaft rings are round cylindrical components with spigot/socket joints. The shafts are used to access sewage lines for inspection, maintenance and/or air-bleeding. The shaft rings include rawplugs for step irons and are supplied with or without the irons. The step irons are made of steel and have plastic coating. The spigot is on the bottom end and enables ballast water to enter the shaft.



Example of designs



STANDARD / A - NATURAL GRAY



WET-CAST / A - NATURAL GREY

SEWER SYSTEMS AND STREET GULLIES

LS15 CSB – WELL AND DRAINAGE SHAFT BASE SLABS DN 1,000, 90 mm thick

Name	Order code	DN	Dimensions* mm		Weight
			Height	t	kg/pcs
Shaft base slab, DN 1,000, 400 mm high, 90 mm thick	CSB - TBZ-Q.2 1000/400	1000	400	90	562
Shaft base slab, DN 1,000, 900 mm high, 90 mm thick	CSB - TBZ-Q.2 1000/900	1000	900	90	932

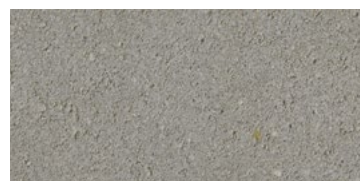
* Nominal dimensions include installation dimensions and/or minimum gap.



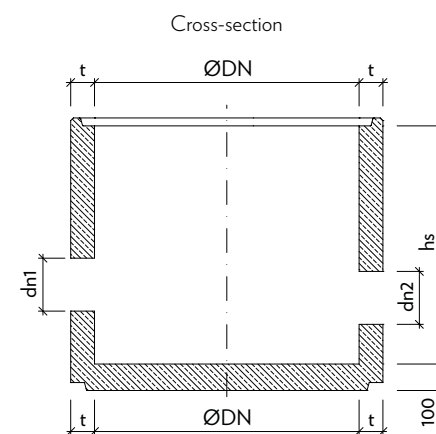
CSB–WELL AND DRAINAGE SHAFT BASE SLABS DN 1,000, 90 mm thick

STANDARD

The shaft/well base slabs have flat bottoms without sewer ducts and may have openings for outlets. The shafts are used to access sewage lines for inspection, maintenance and/or air-bleeding. The base slabs do not include step irons, but do include mounting points (rawplugs) for them. The 1,000 mm high shaft base slab complies with the requirements of TKP and other related drawings.



STANDARD / A - NATURAL GRAY



Example of design



CSB-WELL AND DRAINAGE SHAFT RINGS DN 1,000, 90 mm thick

STANDARD

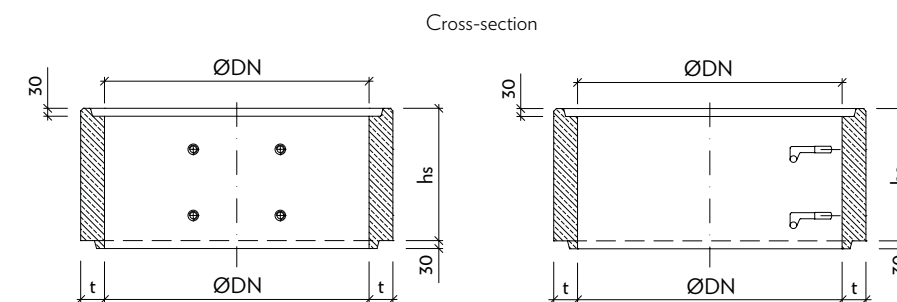
These shaft rings are round cylindrical components with spigot/socket joints. The shafts are used to access sewage lines for inspection, maintenance and/or air-bleeding. The shaft rings include rawplugs for step irons and are supplied with or without the irons. The step irons are made of steel and have plastic coating. The spigot is on the bottom end and enables ballast water to enter the shaft.

SEWER SYSTEMS AND STREET GULLIES

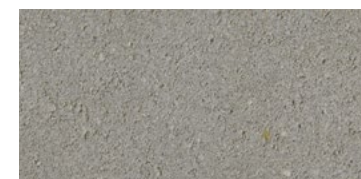
LS14 CSB – WELL AND DRAINAGE SHAFT RINGS DN 1,000, 90 mm thick

Name	Order code	DN	Dimensions*mm		Weight kg/pcs
			Height	t	
Shaft ring, no step irons DN 1,000, height 250, thickness 90 mm	TBS-Q.2 1000/250/90	1000	250	90	185
Shaft ring, no step irons DN 1,000, height 500, thickness 90 mm	TBS-Q.2 1000/500/90	1000	500	90	370
Shaft ring, no step irons DN 1,000, height 1,000, thickness 90 mm	TBS-Q.2 1000/1000/90	1000	1000	90	740
Shaft ring with step irons DN 1,000, height 250, thickness 90 mm, step iron	TBS-Q.2 1000/250/90 SP	1000	250	90	189
Shaft ring with step irons DN 1,000, height 500, thickness 90 mm, step iron	TBS-Q.2 1000/500/90 SP	1000	500	90	374
Shaft ring with step irons DN 1,000, height 1,000, thickness 90 mm, step iron	TBS-Q.2 1000/1000/90 SP	1000	1000	90	748

* Nominal dimensions include installation dimensions and/or minimum gap.



Example of designs



STANDARD / A - NATURAL GRAY

SEWER SYSTEMS AND STREET GULLIES

LS13 CSB – TAPER TOPS AND COVER SLABS, DN 1,000, 90 mm thick

Name	Order code	DN	Dimensions*mm		Weight kg/pcs
			stavební Height	t	
Taper top 1000/625, with step irons, 90 mm thick, step iron	TBR-Q.2 1000x625/600/90 SP	1000/625	600	90	400
Cover slab 1,000/625, D400 loading class	TZK-Q.2 1000x625/200 D400	1000/625	200	90	336
Cover slab 1,000/625, B125 loading class	TZK-Q.2 1000x625/100 B125	1000/625	100	90	168
Cover slab 1,000/100, A15 loading class, half and half	TZK-Q.2 1000/100 A15 half and half	1000/1180	100	90	264

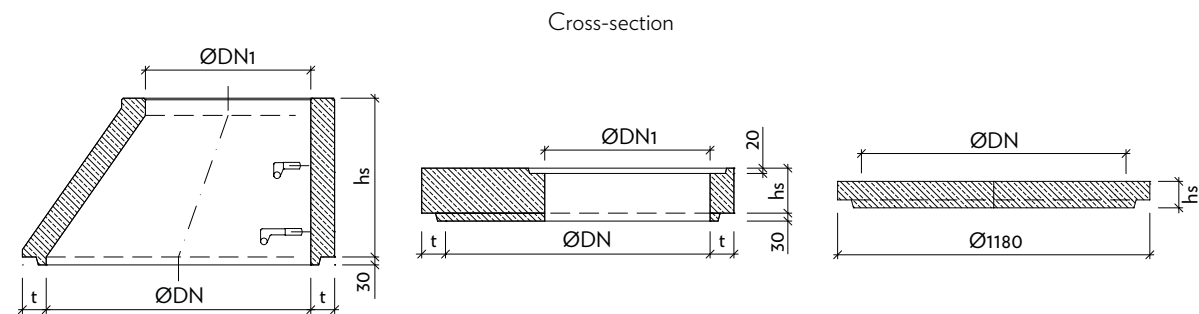
* Nominal dimensions include installation dimensions and/or minimum gap.



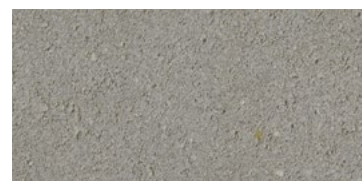
CSB-TAPER TOPS AND COVER SLABS, DN 1,000, 90 mm thick

STANDARD/WET-CAST

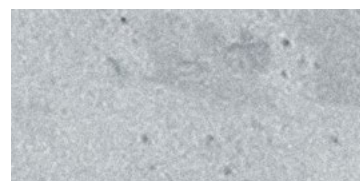
Taper tops and cover slabs are used on top of inspection shafts to reduce their dimensions to the size of the manhole cover. Make up pieces are then used to bring the actual cover to the exact level of the surface, of the cover is installed directly on the cover slab. The shafts are used to access sewage lines for inspection, maintenance and/or air-bleeding. Taper tops include step irons with plastic coating, installed in rawplugs.



Example of designs



STANDARD / A - NATURAL GRAY



WET-CAST / A - NATURAL GREY



CSB-DOG-BONE, DOG-BONE straight edges, DOG-BONE tactile

STANDARD SMOOTH

This type of paving has an exceptionally strong interlocking shape and thus ensures great resistance to horizontal loads. This is one of the most common interlocking paving shapes suitable for heavy traffic areas and areas where heavy vehicles move. This includes parking lots, lay-bys, handling areas around logistic and manufacturing facilities. CSB - DOG-BONE with straight edge is frequently used type of paving, which allows unobstructed movement of shopping trolleys around retail buildings. It can also be used to pave cycling paths. CSB - DOG-BONE tactile can be used to create guidance and warning strips for visually impaired along the pavements, by road crossings, at bus stops and public transport terminals.

CONCRETE PAVERS AND INTERLOCKING PAVERS

AS01 CSB – DOG-BONE

AS02 CSB – DOG-BONE straight edges

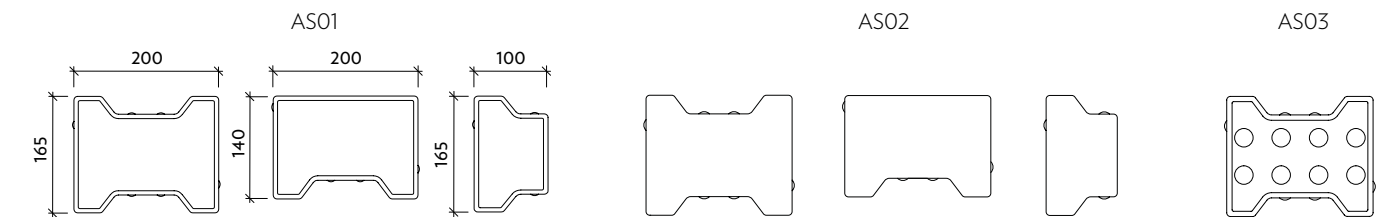
AS03 CSB – DOG-BONE tactile

	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS01					
Basic paver	60/80/100**/120	200	165	12/10/7/6	0,84/1,01**
Half paver	60/80/100	100	165	12/10/8	0,90
Edge	60/80/100	200	140	12/10/8	0,91

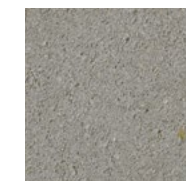
	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS02					
Basic paver	60/80/100	200	165	12/10/8	0,78
Half paver	60/80/100	100	165	12/10/8	0,90
Edge	60/80	200	140	12/10	0,91

	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS03					
Basic paver	60/80	200	165	12/10	0,84

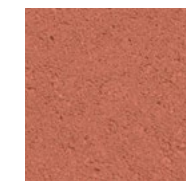
* Nominal dimensions include installation dimensions and/or minimum gap.



Designs



GRAY
SMOOTH / A - NATURAL



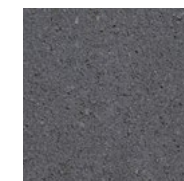
RED
SMOOTH / B - STANDARD



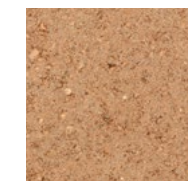
BROWN



SAND



BLACK



MAPLE

CONCRETE PAVERS AND INTERLOCKING PAVERS

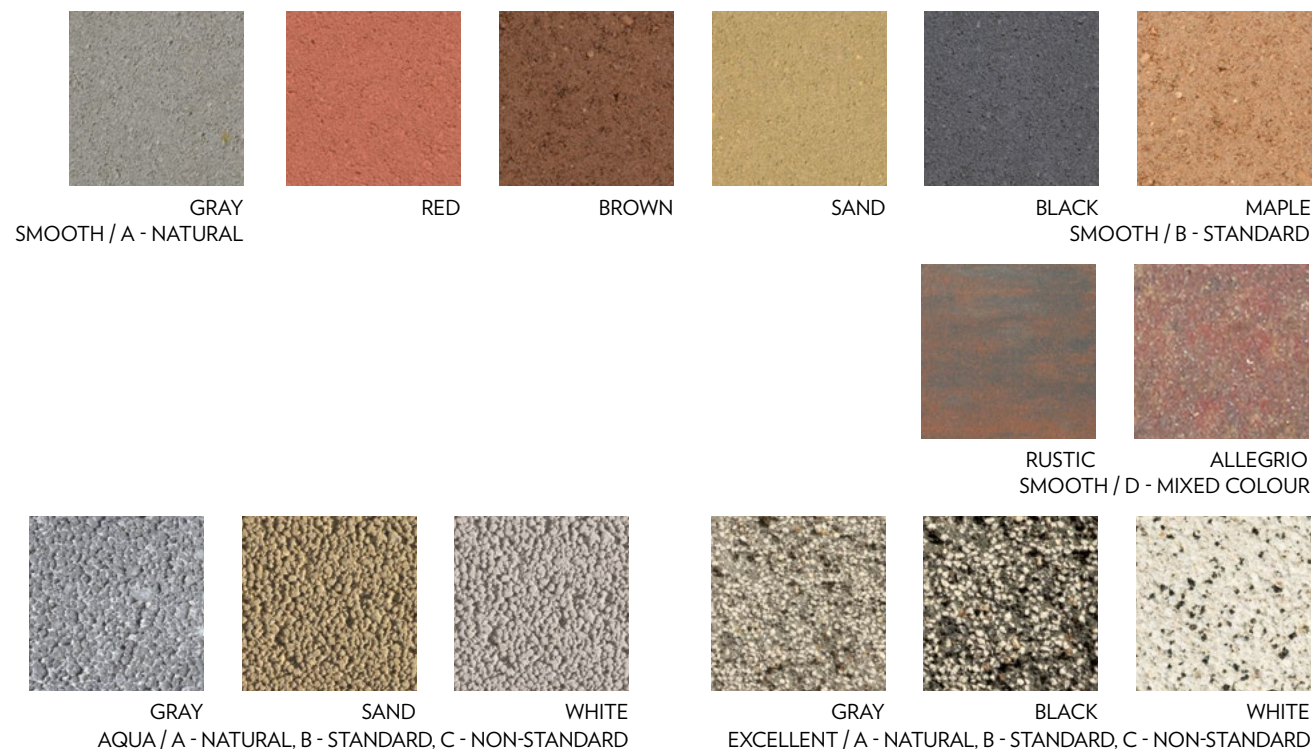
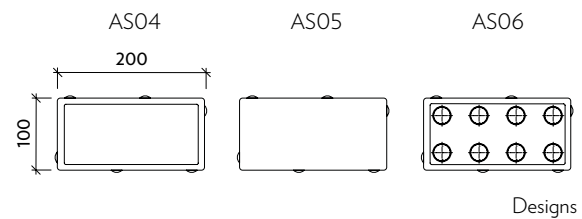
AS04 CSB – BRICK

AS05 CSB – BRICK straight edges

AS06 CSB – BRICK tactile

	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS04	40/60/80/100	200	100	18/12/10/8	0,96
Basic paver					
	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS05	60/80/100	200	100	12/10/8	0,96
Basic paver					
	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS06	60/80	200	100	12/10	0,96
Basic paver					

* Nominal dimensions include installation dimensions and/or minimum gap.



CSB-BRICK, BRICK straight edges, BRICK tactile

STANDARD SMOOTH/AQUA (SCRUBBED)/EXCELLENT (SHOT-BLASTED)

This type of paving is one of the basic shapes for concrete pavers and suitable for wide range of applications. It is one of our most popular paving stones and may be combined with other types, such as QUADRO , COBBLE, etc. It is available in a variety of colours, which can be combined, together with other compatible types of pavers, into an endless array of colour schemes. CSB - BRICK straight edge is one of the most popular pavers for applications where smooth straight surfaces are required. CSB - BRICK tactile is suitable for guiding and warning strips on pavements, by crossings and on bus stops/public transport terminals.

CONCRETE PAVERS AND INTERLOCKING PAVERS

AS07 CSB - COBBLE

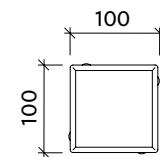
Name	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
Basic paver	60/80	100	100	12/10	0.88

* Nominal dimensions include installation dimensions and/or minimum gap.

CSB-COBBLE

STANDARD SMOOTH

These pavers are suitable for a wide range of applications, together with BRICK or QUADRO pavers. Smaller pavers are especially suitable for irregularly-shaped areas.



Designs



GRAY
SMOOTH / A - NATURAL



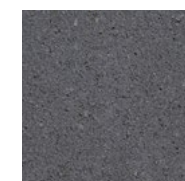
RED
SMOOTH / B - STANDARD



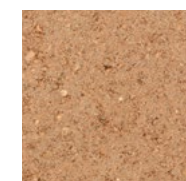
BROWN



SAND



BLACK



MAPLE

CONCRETE PAVERS AND INTERLOCKING PAVERS

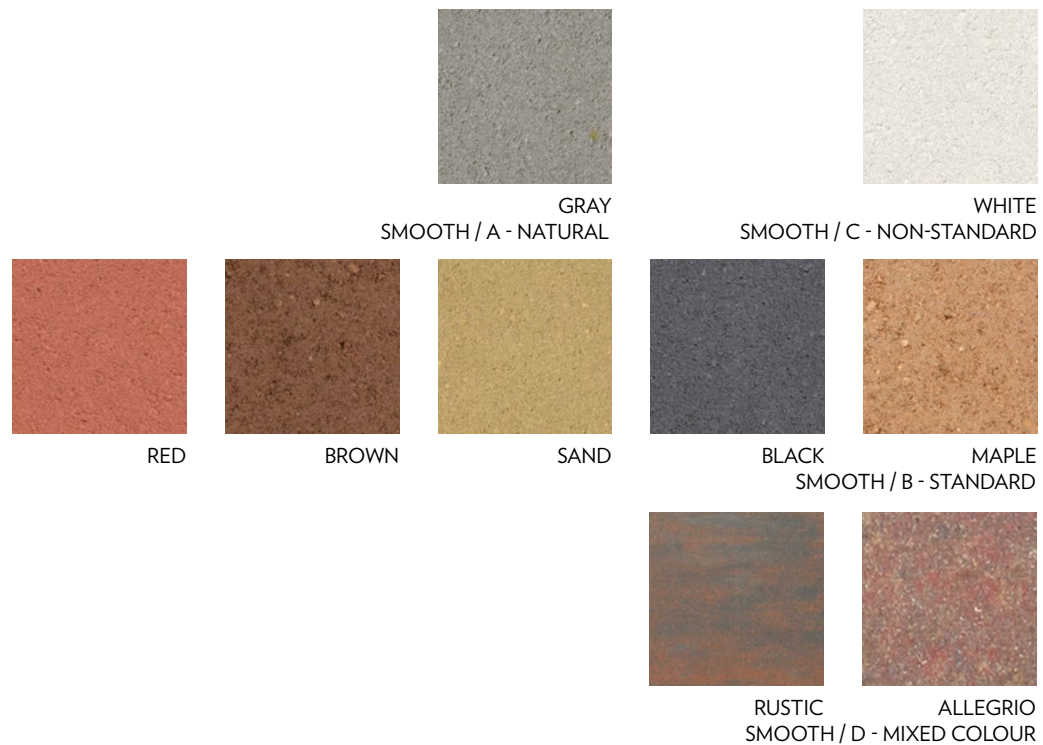
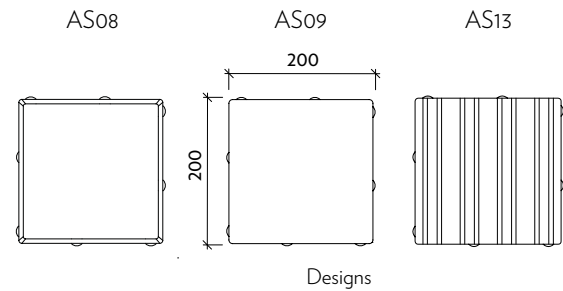
AS08 CSB - QUADRO

AS09 CSB - QUADRO straight edge

AS13 CSB - QUADRO fluted

	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS08 Basic paver	60/80	200	200	12/10	0,96
	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS09 Basic paver	60/80/100	200	200	12/10/8	0,96
	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS13 Basic paver	60/80	200	200	12/10	0,96

* Nominal dimensions include installation dimensions and/or minimum gap.



CSB-QUADRO, QUADRO straight edge, QUADRO fluted

STANDARD SMOOTH

Another basic shape for a wide range of applications. Thanks to its shape, it is very easy to lay and can be combined with other pavers such as COBBLE, or BRICK. CSB - QUADRO straight edge another paver for applications where smooth straight surfaces are required. It is especially suitable for areas around retail centres where shopping trolleys are present. It can also be used to pave cycling paths. CSB - QUADRO fluted is suitable for guiding and warning strips on pavements, by crossings and on bus stops/public transport terminals.

CONCRETE PAVERS AND INTERLOCKING PAVERS

AS10 CSB – PALTICO

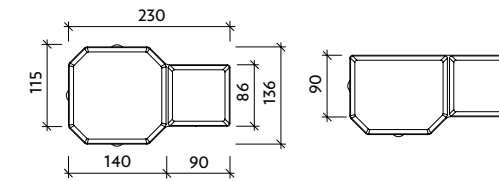
Name	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
Mix of 3 shapes	60	230	115/90	12	0,92
Basic paver	80	230	115	10	0,93

* Nominal dimensions include installation dimensions and/or minimum gap.

CSB-PALTICO

STANDARD SMOOTH

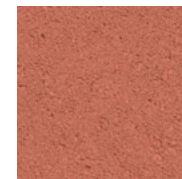
This paving is especially suitable for areas with heavy traffic. When combined with border stones, it is also suitable for pavements, parking areas and surfaced areas around family houses.



Designs



GRAY
SMOOTH / A - NATURAL



RED
SMOOTH / B - STANDARD



SAND

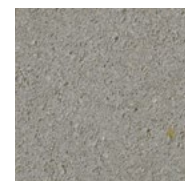
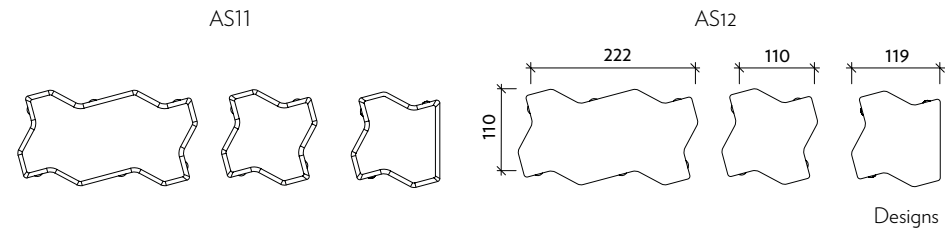
CONCRETE PAVERS AND INTERLOCKING PAVERS

AS11 CSB – VARIO

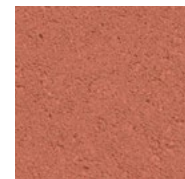
AS12 CSB – VARIO straight edge

	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS11					
Mix of 3 shapes	60/80	222/110	110	12/10	0,85
Mix of 2 shapes	100	222/110	110	8	0,83
	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
AS12					
Mix of 3 shapes	60/80	222/110	110	12/10	0,85

* Nominal dimensions include installation dimensions and/or minimum gap.



GRAY
SMOOTH / A - NATURAL



RED
SMOOTH / B - STANDARD



CSB-VARIO, VARIO straight edge

STANDARD SMOOTH

VARIO pavers with double locks are suitable for areas with heavy horizontal loading, such as surfaced areas with heavy traffic and/or where heavy machinery is present.



CSB-KLADNO COBBLE

STANDARD SMOOTH

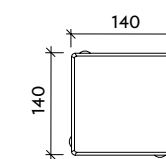
The KLADNO COBBLE pavers feature special bumps which ensure accurate gaps. Apart from basic grey, they are also available in five other colours, which may be combined to create visually attractive applications.

CONCRETE PAVERS AND INTERLOCKING PAVERS

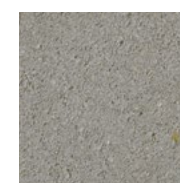
AS14 CSB – KLADNO COBBLE

Name	Nominal dimensions* mm			Quantity	
	Height	Length	Width	layers/palet	sq.m/layer
Basic paver	60/80	140	140	12/10	0,94

* Nominal dimensions include installation dimensions and/or minimum gap.



Design



GRAY
SMOOTH / A - NATURAL



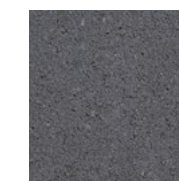
RED
SMOOTH / B - STANDARD



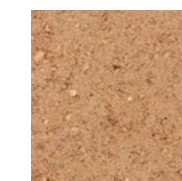
BROWN



SAND



BLACK



MAPLE

PERMEABLE PAVERS

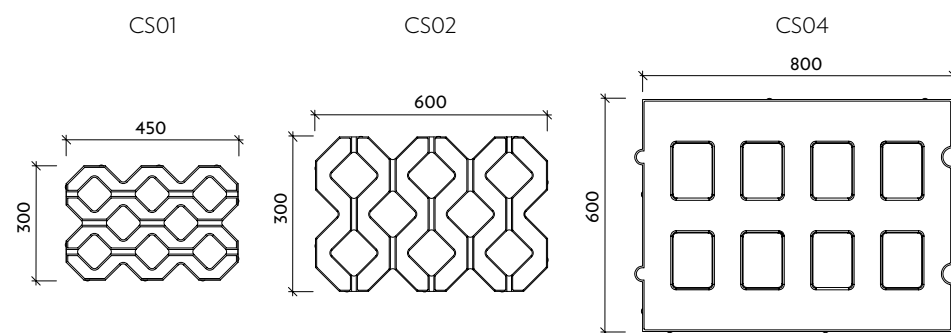
CS01 CSB – PERMEABLE PAVER-SMALL

CS02 CSB – PERMEABLE PAVER-LARGE

CS04 CSB – PERMEABLE PAVER-20

Name	Nominal dimensions* mm			Quantity			
	Height	Length	Width	layers/pallette	pcs/layer	pcs/sq.m	sq.m/pallette
Small - basic stone	80	450	300	11	8	7,41	12,98
Large - basic stone	80	600	400	11	4	4,17	10,56
Large - basic stone	100	600	400	9	4	4,17	8,64
20 - basic stone	200	800	600	4	2	2,08	3,84

* Nominal dimensions include installation dimensions and/or minimum gap.



Designs



GRAY
SMOOTH / A - NATURAL



CSB-PERMEABLE PAVER-SMALL, PERMEABLE PAVER-LARGE, PERMEABLE PAVER-20

STANDARD SMOOTH

These permeable pavers are suitable for areas with heavy loads (up to D400 kN when grass is present over 35 % of the entire paved area). The pavers can also be used to stabilise slopes and river beds and enable rainwater to permeate into the subsoil. To enable this, the openings must be filled with soil suitable for grass, or aggregate. PERMEABLE PAVER-20 is suitable for areas with heavy loads (up to D400 kN when grass is present over 23,5 % of the entire paved area).



PERMEABLE PAVERS

CS03 CSB – ERBO

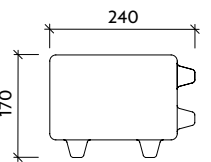
Name	Nominal dimensions* mm			Quantity		
	Height	Length	Width	layers/pallette	pcs/layer	sq.m/pallette
Basic paver	80	240	170	10	25	10,20

* Nominal dimensions include installation dimensions and/or minimum gap.

CSB-ERBO

STANDARD SMOOTH

Pavers with distance bumps ensuring 30 mm gaps, suitable for surfaced areas where part of rainwater should permeate into the subsoil (parking lots and lay-bys). To enable this, the openings must be filled with soil suitable for grass, or aggregate.



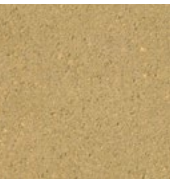
Design



GRAY
SMOOTH / A - NATURAL



RED
SMOOTH / B - STANDARD



SAND



BLACK



MAPLE

RETAINING WALLS

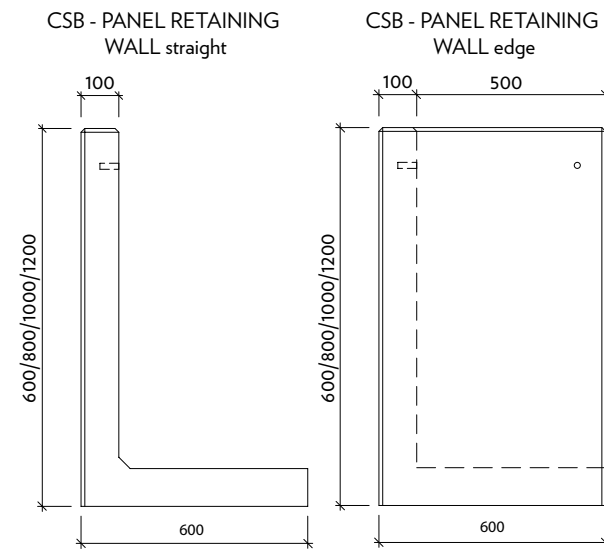
ES05 CSB – RETAINING WALL PANELS

Name	Nominal dimensions* mm			Quantity	Weight
	Height	Length	Width	pcs/layer	kg/pcs
straight	600	500	600	4	132
straight	800	500	600	4	156
straight	1000	500	600	4	180
straight	1200	500	600	4	204
corner	600	600	600	4	218
corner	800	600	600	4	271
corner	1000	600	600	4	324
corner	1200	600	600	4	377

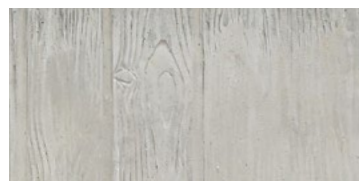
* Nominal dimensions include installation dimensions and/or minimum gap.



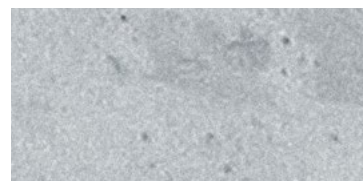
Side-view



Designs



WET-CAST, TREATED / A - NATURAL GRAY



WET-CAST, UNTREATED / A - NATURAL GREY

CSB-RETAINING WALL PANELS

WET-CAST

These products are designed for terraces and slopes, both as part of vertically-divided plots and at ends of green areas. The panels are reinforced, with a 40 mm shielding. The front face has a wood finish surface.



CSB-FLORIA, TIESTO, FLORETA

STANDARD SMOOTH

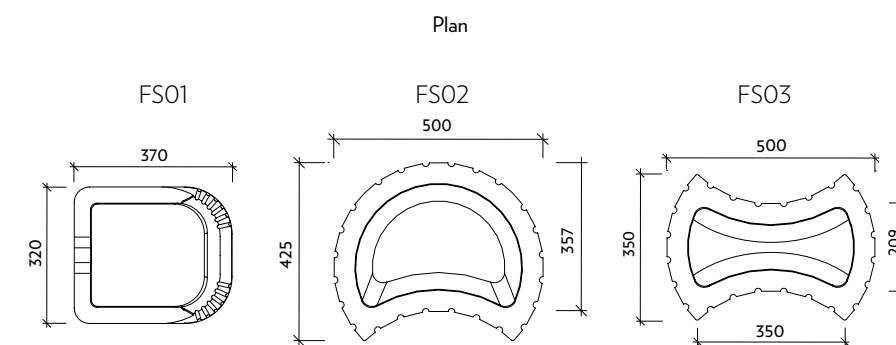
These decorative planters can be used to form retaining walls and reinforce slopes both in gardens and in public parks. The maximum height of retaining wall formed by these products should not exceed 1.6 m.

RETAINING WALLS

FS01 CSB – FLORIA FS02 CSB – TIESTO FS03 CSB – FLORETA

Name	Nominal dimensions* mm			Quantity		Weight
	Height	Length	Width	layers/palette	pcs/layer	pcs/kg
FLORIA planter	130	370	320	4	6	13,00
TIESTO planter	300	357	500	4	12	46,80
FLORETA planter	300	500	209	4	12	45,30

* Nominal dimensions include installation dimensions and/or minimum gap.



Designs



GRAY
SMOOTH / A - NATURAL



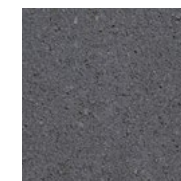
RED
SMOOTH / B - STANDARD



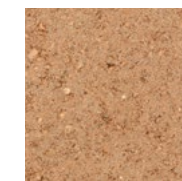
BROWN



SAND



BLACK



MAPLE

CS-BETON's production facility is based in Velké Žernoseky near Litoměřice on the right bank of the Elbe river under a hill called Radobýl, with a conspicuous rocky headland marked with three crosses visible just down the river. Our plant is on the bank of Žernosecké jezero reservoir. This area is historically known as Porta Bohemica, the Gate to Bohemia. Apart from first-class concrete prefabricates, it is also known for excellent wines.



CS-BETON s.r.o., Velké Žernoseky 184, 412 01 Litoměřice

