



2in1

Kerb and  
Drainage

Combined kerb

and drainage system

ACO DRAIN KerbDrain City



## Kerbstone and drainage

The 2-in-1 solution combines the functions of kerbstone and drainage channel. This system ensures continuous water drainage and is the alternative to the ditched channel, which is placed in the lane and makes it more narrow.

### ACO DRAIN® KerbDrain City

the monolithic hollow kerbstone channel

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### KerbDrain 305

monolithic channel body  
made of polymer concrete

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### KerbDrain 480

monolithic channel body  
made of polymer concrete

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# ACO. we care for water

ACO is a water technology company that protects water. Based on our global drainage expertise, which protects people from water, we increasingly see our mission as also protecting water from people.

Within the ACO WaterCycle we supply systems to collect, lead, clean, store and finally to reuse water. In this way, ACO is helping to preserve clean groundwater as a vital resource and making a contribution to the world of tomorrow. In its Agenda 2030, the UN world community has defined the improvement of water quality as one of 17 goals for sustainable development.

Intelligent drainage systems from ACO are increasingly using smart technology to ensure that rainwater and wastewater is drained or temporarily stored. We use innovative separation and filter technology to prevent contamination of the water, for example by grease, fuels, heavy metals or microplastics.

Today, ACO goes one step further: We accept the challenge of reusing water and thus ensuring a resource-saving cycle. With all products and systems, ACO attaches great importance to longevity, reusability and a low CO<sub>2</sub> footprint. Striving for sustainability is a constant process that we want to face anew every day.

The ACO Group is a global family company that is one of the world market leaders in the water tech segment. founded in Schleswig-Holstein in 1946, it operates as a transnational network in more than 50 countries. ACO is characterized worldwide by high decentralized ownership and explicit regional market proximity.

[www.aco.com](http://www.aco.com)



Owner  
Iver and Hans-Julius Ahlmann



Headquarters of the ACO Group  
in Rendsburg/Büdelndorf



**5,500**

Employees in more than 50 countries  
(Europe, North and South America,  
Asia, Australia, Africa)

**1.14 billion**

Euros turnover 2024

**43**

Production sites  
in 20 countries



ACO Academy  
for practice-oriented training

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# Use the kerbstone for drainage!

The drainage concept “We protect people from water” plays a central role in the ACO DRAIN® KerbDrain City - system. If safe and rapid water drainage is not guaranteed in city centres after an extreme weather event, pedestrians on footpaths or waiting passengers are often unexpectedly splashed by passing vehicles.

## ACO DRAIN® KerbDrain City for municipal drainage

What the media likes to stage as a funny scene should of course not happen to you personally. ACO offers an innovative solution to this problem with the KerbDrain City hollow kerbstone channel for urban and municipal drainage of traffic areas.



If the kerbstone is replaced by a kerb gutter, this can quickly cope with rain events - from precipitation to heavy rain - through lateral inlet openings by keeping the surface water off the road and absorbing it completely. Puddles disappear in no time at all!

# ACO DRAIN® KerbDrain City -

## kerb drainage

## in detail

ACO DRAIN® KerbDrain City has been specially developed to enable planners and architects to equip roads, car parks and urban development areas with an optimum drainage system.

The low weight, integration of the hollow kerb drainage channel into the kerbstone and easy cleaning make the system cost-effective from installation through to use.

Thanks to the proven material ACO polymer concrete, the KerbDrain is highly stable (class D 400) as well as frost and de-icing salt resistant and can be used where conventional products are difficult and cost-intensive to install.

■ High stability and extreme durability thanks to the polymer concrete material

■ Monolithic construction without adhesive joint

0.5 m element

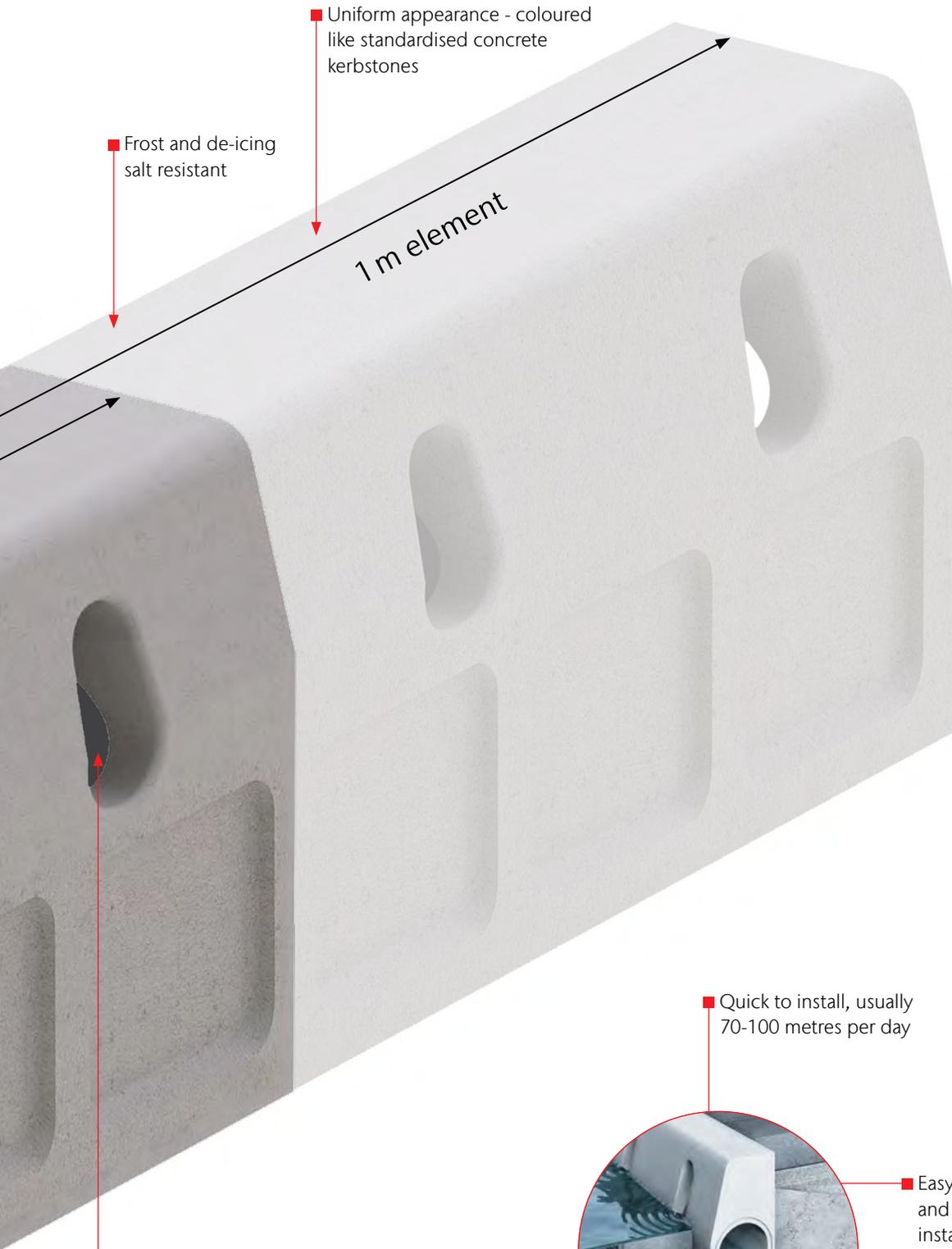


■ With standardised rebate at the gutter joint for optional sealing

■ Low weight - up to 60% lighter than standardised concrete kerbstones

# 2in1

## Kerb and Drainage



■ Uniform appearance - coloured like standardised concrete kerbstones

■ Frost and de-icing salt resistant

1 m element

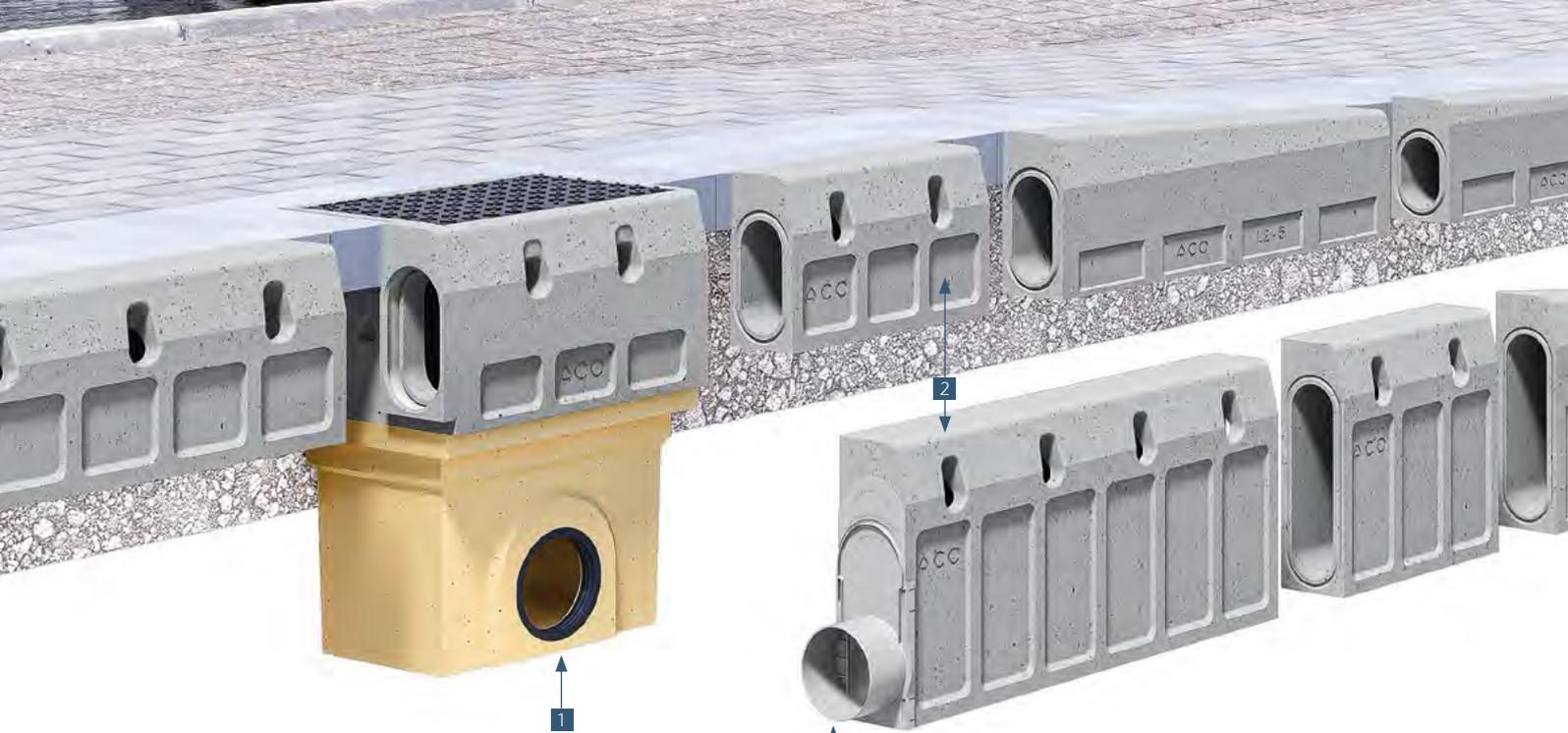
■ Rapid drainage through lateral inlet openings in accordance with DIN EN 1433, inlet cross-section min. 147 cm<sup>2</sup>/m

■ Quick to install, usually 70-100 metres per day



■ Easy installation - kerbstone and drainage channel are installed in a single operation

■ Easy handling - alignment and installation without heavy equipment



## KerbDrain in a modular system

ACO DRAIN® KerbDrain City is versatile in its application thanks to the intelligent modular system and the construction overall heights of 480 mm and 305 mm.

Especially in areas with a slope of less than 0,5% the KerbDrain system has its advantages. The time-consuming construction of a pendulum channel is not necessary here. As two construction overall heights are available, long lengths of pipework can be produced and base pipes can often be omitted completely over certain lengths.

### KerbDrain 305 system

- 1 Two-piece inlet chamber with gully DN/OD 160 or 200
- 2 KerbDrain element 0.5 m or 1.0 m
- 3 Dropped kerbs left/right one-piece 10% or two-piece 5% (barrier-free in accordance with DIN 18040-1)
- 4 Centre stone with/without inlet opening
- 5 Inspection element 0.5 m
- 6 Universal closing end cap PP (not shown)

### KerbDrain 480 system

- 1 Two-piece inlet chamber with gully DN/OD 160 or 200
- 2 KerbDrain element 0.5 m or 1.0 m
- 3 Dropped kerbs left/right one-piece 10%
- 4 Centre stone with/without inlet opening
- 5 Inspection element 0.5 m
- 6 Universal closing end cap PP



■ KerbDrain 305 system

■ KerbDrain 480 system

## safe

### Advantages for the operator

- 2in1 - kerb and drainage in one system
- Reliable drainage by minimising splash water
- Stretching of the tee points to the channel possible
- Permanently frost and de-icing salt resistant
- Simple flushing process due to inspection elements
- Hollow kerb channel type recognised as a standard drainage system (in accordance with REwS 2021, 5.4.8)

## versatile

### Advantages for the planner

- Saving the trailing cable with 2in1
- Versatile and comprehensive modular system (dropped kerbs, radii, channel bodies for the bus stop)
- Reliable drainage performance during heavy rainfall, reduction of the water level width (inlet cross-section = 147 cm<sup>2</sup>/m)
- Uniform and aesthetic appearance thanks to concrete grey coloured products
- Durable resistance due to polymer concrete material

## economic

### Advantages for the building contractor

- Economical installation - kerb and drainage in one operation
- Fast relocation times and direct processing
- Easy handling - installation possible without heavy equipment
- Robust components thanks to monolithic construction

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## Inner-city applications

ACO DRAIN®  
KerbDrain City

The ACO DRAIN® KerbDrain City system can be used for a wide range of applications, especially in city centres. The combined kerb and drainage system offers a reliable solution for local thoroughfares as well as for bus stops, property access roads or car parks.

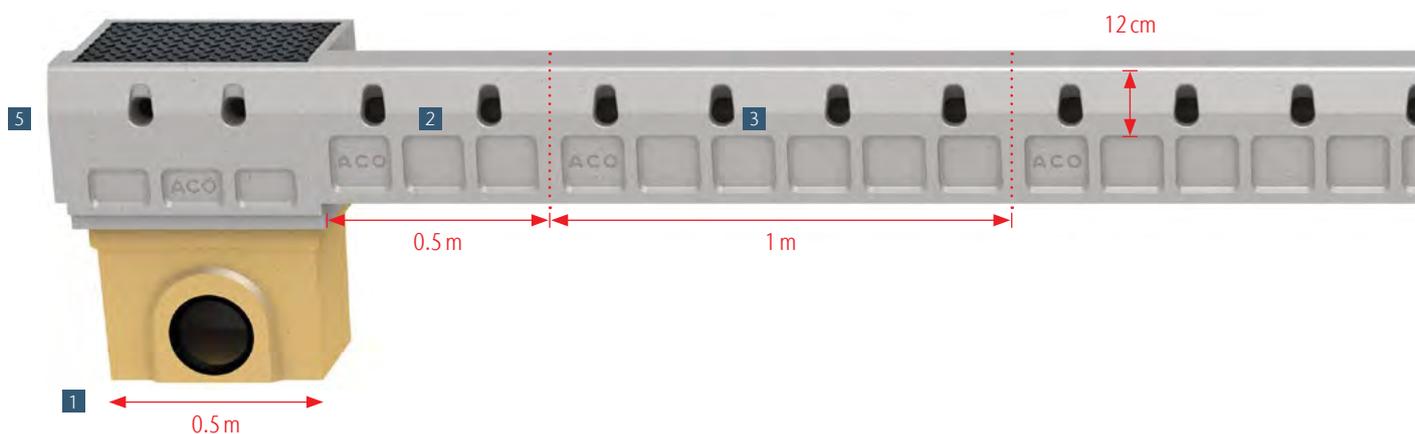
ACO application technology will be happy to support you with your building project:  
[info@aco-international.com](mailto:info@aco-international.com)  
[www.swm.aco](http://www.swm.aco)

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# Road drainage application

The ACO DRAIN® KerbDrain City system is a sensible and economical alternative to a conventional pendulum channel, particularly for traffic areas with low or no longitudinal slope. The partial elimination of the underground drag line, the direct connection of the asphalt to the system and the elimination of tee points to the sewer are decisive advantages for operators, planners and contractors.

Thanks to the inlet chambers and inspection elements located outside the carriageway, cleaning and/or inspection can be carried out reliably despite the area on the road being blocked by parked cars, for example. The linear and continuous drainage with the KerbDrain ensures rapid and reliable water drainage.





### System elements of the local thoroughfare

- 1 Two-piece inlet chamber with gully DN/OD 160 or 200
- 2 KerbDrain element 0.5 m
- 3 KerbDrain element 1.0 m
- 4 Inspection element
- 5 Universal closing end cap panel start/end

# Bus stop application

Local public transport, especially bus transport, is in direct competition with private transport. The bus stop is not only an element that characterises the cityscape, but also a calling card for public transport. Their level of equipment and condition is often even a decisive criterion for passengers to use public transport. The location and structural design must therefore fully meet the requirements of customers in terms of service or accessibility.

A key requirement for the construction or modernisation of bus stops in many places today is a raised half battered kerb with a minimum height of 18 cm to enable barrier-free access to low-floor buses.

The component length (1 m) ensures barrier-free access with a maximum longitudinal inclination of 6% in accordance with DIN 18040-2.

In addition, the surface of the elements is slip-resistant for the safety of passengers. In contrast to point drainage, the ACO DRAIN® KerbDrain Buskerb system prevents the possible formation of puddles in the event of precipitation. This effectively protects waiting passengers from splashing water when the bus enters or approaches.

Bus stops are traffic areas with extreme thrust forces in the lane. Shifting the drainage object from the carriageway to the kerb significantly reduces the stress in this area.

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**www.swm.aco**



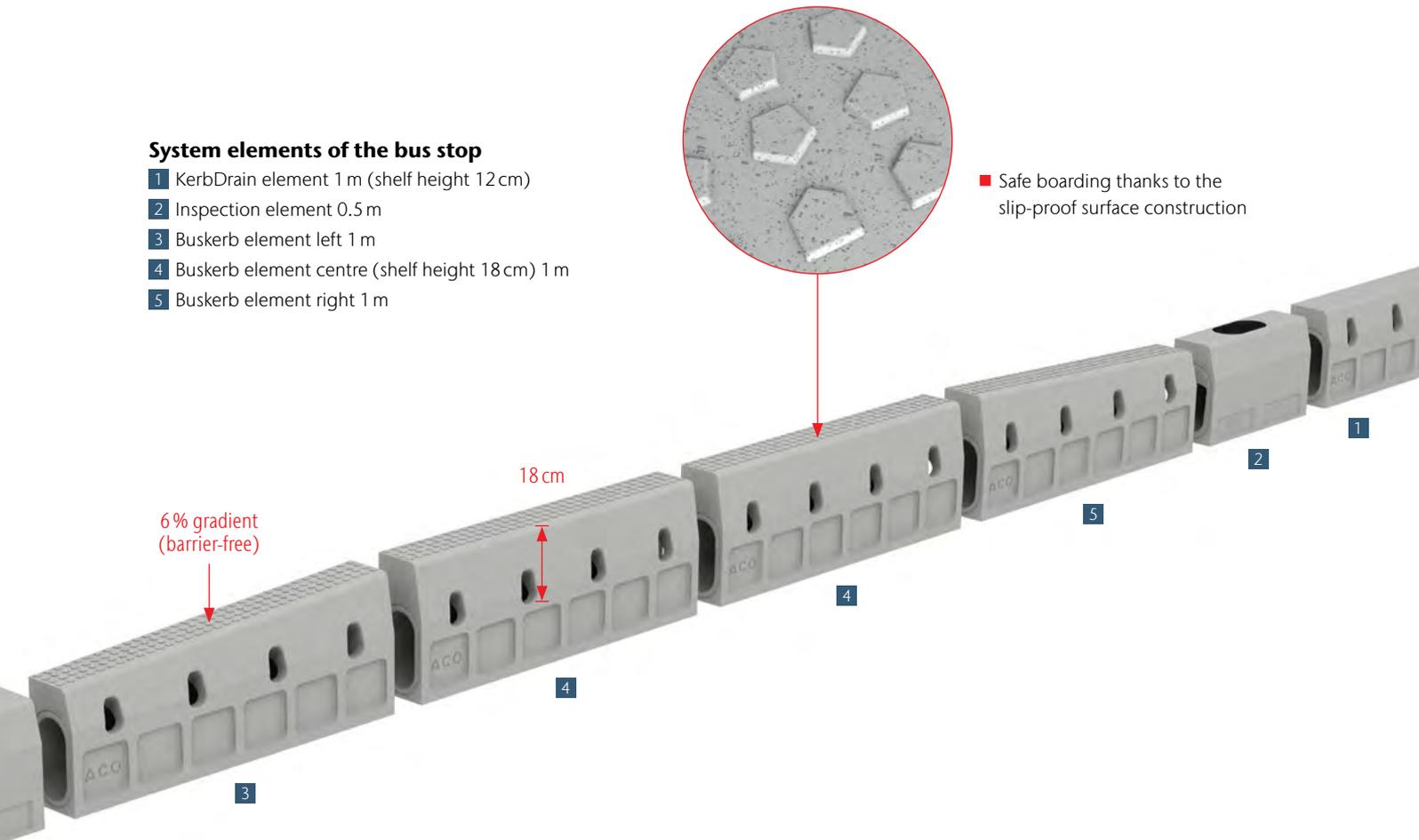
Accessible boarding of the bus thanks to the 18 cm half battered kerb



**System elements of the bus stop**

- 1 KerbDrain element 1 m (shelf height 12 cm)
- 2 Inspection element 0.5 m
- 3 Buskerb element left 1 m
- 4 Buskerb element centre (shelf height 18 cm) 1 m
- 5 Buskerb element right 1 m

■ Safe boarding thanks to the slip-proof surface construction





Lowering with 10% inclination (1-part)



Lowering with 5% inclination (two-piece)

#### System elements of the driveway

- 1 Dropped kerb left one-piece, 10%
- 2 Dropped kerb right one-piece, 10%
- 3 Centre stone
- 4 Dropped kerb left L2-5 } two-piece, 5%
- 5 Dropped kerb left L1-5 }
- 6 Dropped kerb right R1-5 } two-piece, 5%
- 7 Dropped kerb right R2-5 }

## Driveway application

The arrangement of driveways within a thoroughfare is the rule. A wide range of countersink stones and dropped kerbs can be used for this purpose.

Centre blocks can be supplied with or without openings, integrate unobtrusively into the driveway and have a residual kerb height of 2 cm when installed.

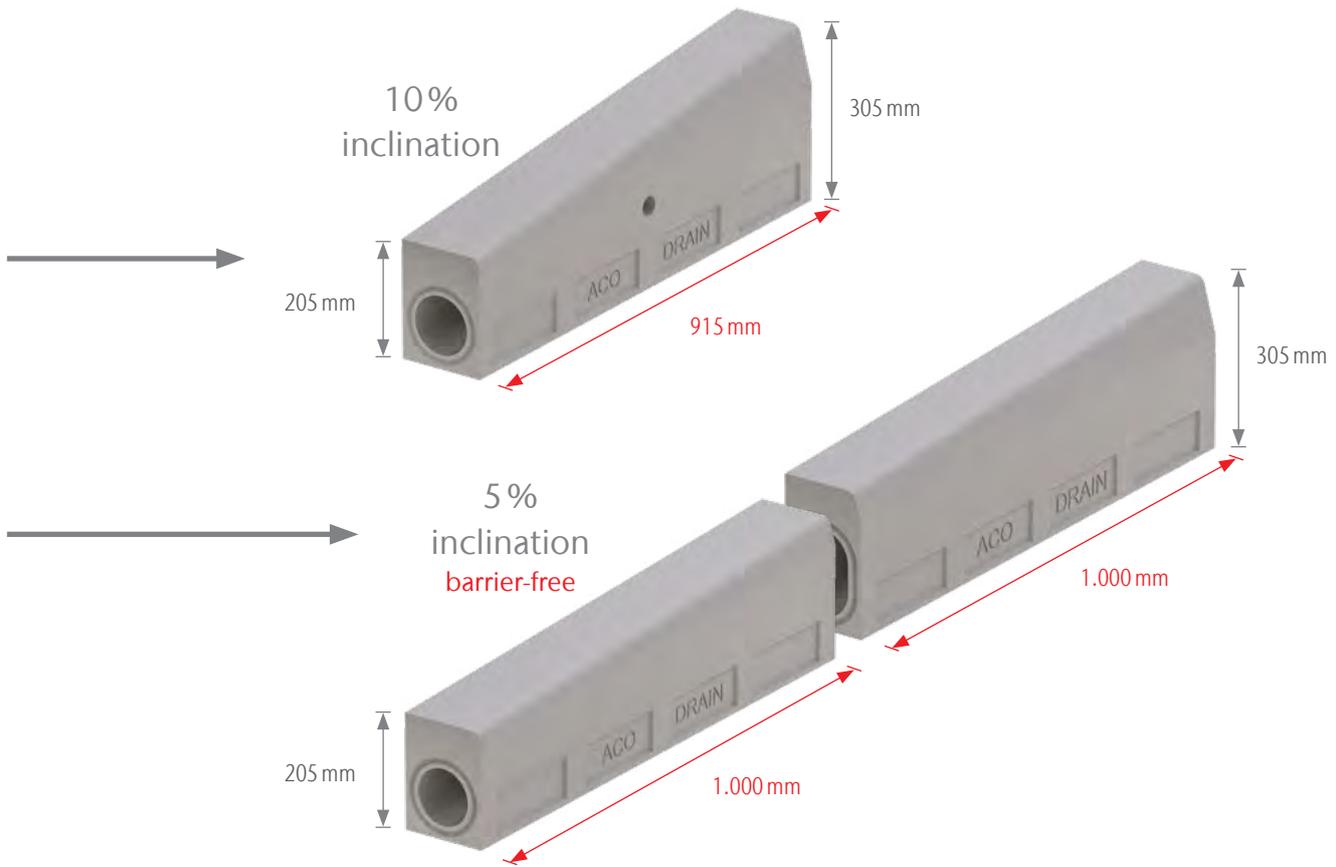
In areas of property access roads with occasional lorry traffic, a back support must be provided on both sides of the central or crossing lane. A reinforced version of the centre block (type HD) is also available for this application.

If there is frequent lorry traffic, we recommend installing the ACO DRAIN® Monoblock channel system in the access area instead. Our application technology team will be happy to advise you.

The structural design of kerb drops is a key aspect in the design of barrier-free road spaces. In the area of driveways, kerbs can therefore be lowered by two-piece dropped kerbs over a length of 2.0m. With a resulting gradient of just 5%, the drops fulfil the requirements of DIN 18040-3 (accessible building - Planning principles - Part 3: Public traffic and open space, version 2014-11) in the area of the permitted longitudinal gradient (maximum 6 %).



Centre stones with inlet openings





Radius stones for car park entrances are available on request and complete the system. They can also be customised on site.

## Car park application

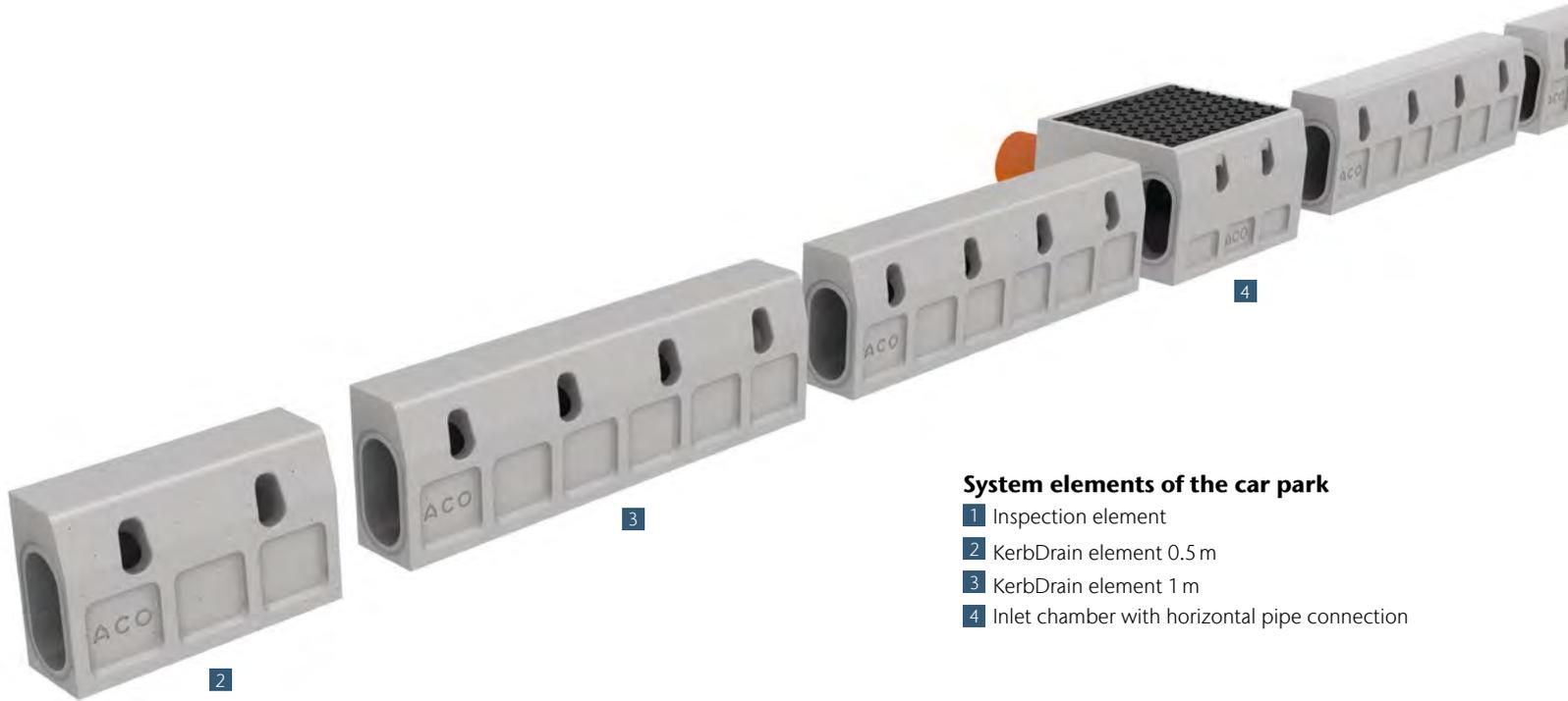
Continuous and linear drainage in car parks can guarantee fast and effective water drainage without changing gradients on the surface. Furthermore, the use of a raised gutter along the car park minimises both underground pipe zones below the parking areas and possible subsidence risks.

Another advantage during the construction phase is that the surface course can be laid without having to worry about changing gradients or pump outlets within the car park.

With ACO DRAIN® KerbDrain City kerb drainage, standing water in car parks, puddles and the resulting risk of black ice are a thing of the past.

The modular system is rounded off by the possible use of radius blocks (on request) and gives the planning engineer maximum flexibility for the design of car parks.





**System elements of the car park**

- 1 Inspection element
- 2 KerbDrain element 0.5 m
- 3 KerbDrain element 1 m
- 4 Inlet chamber with horizontal pipe connection

**Inlet chambers KD 305**

	Dimensions			Pipe connection DN/OD [mm]	Weight [kg]	Article no.
	Length	Width	Height			
	[mm]	[mm]	[mm]			
	<b>Upper part</b>					
	550	425	370	-	93.0	152029
	<b>Bottom part short form, LLD pipe connection</b>					
	500	322	365	160	28.5	01614
				200	27.0	06190
	<b>Bottom part long form, LLD pipe connection</b>					
	500	322	715	160	49.9	03217
200				49.9	08565	
	<b>Inlet chamber as special design Inspection element</b>					
	550	425	370	160 vertical	96.0	152032
	550	425	370	110 horizontal	98.0	152033
	550	425	370	160 horizontal	97.0	152034



Inlet chamber with removable silt bucket



A line with inlet chamber protects the sewage system from silting up

3



## Technical information

ACO DRAIN®  
KerbDrain City

The ACO DRAIN® KerbDrain City system comprises a comprehensive range of different components. The intelligent modular system is rounded off with the corresponding accessories, such as inlet chambers, inspection elements and end caps.

ACO Application Engineering will be happy to assist you in selecting the installation overall height and spacing of the inlet chambers with the help of the ACO hydraulic programme.

Our team will also be happy to provide you with property-specific quantity surveys, cost calculations and tender specification texts.

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# Practical tips

## Maintenance and cleaning

The cleaning intervals for KerbDrain kerb channels must be individually adapted to the local circumstances. Depending on the construction site, traffic volume and location, a visual inspection should be carried out first (at least once in autumn and once in spring). If necessary, we recommend cleaning with the help of a suction and rinsing trolley. Commercially available flushing mice (e.g. jet angle 0-30°) are used here (depending on the KerbDrain system). Visual inspections while the sweeper is travelling along the channel make sense, as experience with the system shows that the majority of the leaves that accumulate remain in front of the gutter and are not carried into it in the first place.



### YouTube video

Kerb channel ACO KerbDrain: Maintenance and cleaning

- Recommendation: visual testing of the degree of pollution of the channel and accessories (min. 1x autumn + 1x spring)
- If necessary, empty the silt bucket in the inlet chamber first
- Sweeping machine before flushing, as dirt often remains in front of the channel
- General recommendations for cleaning/flushing the channel system:
  - combined suction and flushing trolley with suction hose DA 126 (or similar)
  - Rinsing hose: ½"
  - Flushing nozzle: commercially available gutter nozzle or flushing mouse
  - Flushing nozzle jet angle 0-30° recommended
  - Flush volume: 100-120 l/min
  - Flushing pressure (depending on the degree of pollution): ~60 bar
  - possible cleaning lengths: ~80-100 m (depending on hose length)
- Rule of thumb for gutter cleaning: More water, less pressure!



■ Rinse inspection element



■ Rinsing the inlet chamber

## Masking the inlet openings

To guarantee optimum water drainage, it is generally recommended that the installation of road surface is raised by approx. 3-10 mm in front of the channel. To prevent possible asphalt or mortar slurry from entering during installation, the inlet openings should be sealed with suitable adhesive tape<sup>1)</sup> on site. After installation, the adhesive tape should be removed without leaving any residue.

ACO standard service specifications actively refer to the taping of the inlet openings during installation.

<sup>1)</sup>Suitable adhesive tape is not part of the ACO supply programme. The necessary material and any additional costs for installation must be remunerated separately or shown in advance in the bill of quantities.



■ Adhesive tape protects during the entire installation

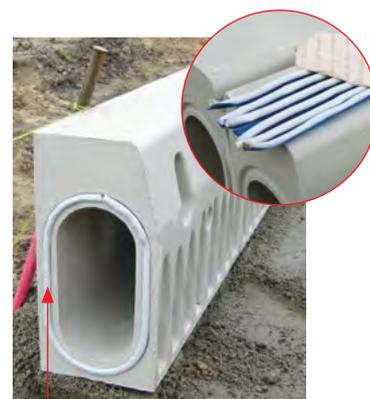
## Seal gutter joints

In accordance with DIN EN 1433, our KerbDrain hollow kerb channel system (type City) is designed so that the joints between the channel bodies can be permanently sealed on site. For on-site sealing, the channel bodies are provided with a groove at the factory into which a suitable sealant<sup>2)</sup> can be inserted on site before the channels are assembled.

- Recommendation Sealing cord: Terostat VII round cord Ø 8 mm (Teroson from Henkel or GLW)
- Recommendation to improve adhesion: Spray adhesive type Terotech (Teroson from Henkel or GLW)

The manufacturer's processing instructions and the local accident prevention regulations must always be observed!

<sup>2)</sup>Suitable sealants are not part of the ACO supply programme. The necessary material and any additional costs for installation must be remunerated separately or shown in advance in the bill of quantities.



■ Sealant in groove

## Opening and closing accessories

### Inspection element with composite cover

Auxiliary means: ACO grating hook, art. no. 01367 or alternatively: commercially available hand hook



**Open:** Insert the grating hooks or equivalent tool into the central opening and press down the catch.



Hold the grate hook down and turn it 90° so that the grating hook is locked in the composite plastic cover.



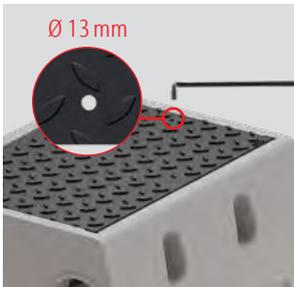
Lift the grating hook together with the plastic cover and remove it from the frame.



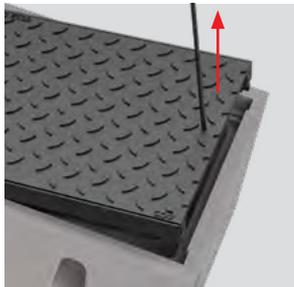
**Close:** Insert the cover into the frame and snap it into place with light pressure from above. "Click" noise can be heard. Cover is level with the frame.

### Sump unit with cast iron cover plate

Auxiliary means: ACO grating hook, art. no. 01367 or equivalent



**Open:** Insert the grating hook or equivalent tool into the central opening in the Drainlock cast cover plate.



Lift the grating hook vertically and lift out cover plate.



Insert the cast cover plate precisely into the frame.



**Close:** Engage with light pressure from above. "Click" noise can be heard. Cover is levelled with the inlet chamber. The cast cover plate is now securely locked in place without screws.

## Safe lifting and moving

For safe and efficient moving, we recommend the use of professional lifting equipment. Suitable device may vary depending on the application and product. However, the lifting device must always be selected taking into account the maximum lifting force of the device, the maximum finished part weights, the locally applicable accident prevention regulations and in accordance with the current manufacturer's specifications.

Examples of commercially available lifting devices are

- Kerb clamps (BZ)
- Kerb setting pliers (BVZ)
- Precast tongs (FTZ) Probst GmbH or GLW



■ Pliers make it easier to move the elements

# Product information

## Channel body without base slope, 1000 mm and 500 mm, class D 400



Dimensions			Type	Weight	Article no.
Length	Width	Height			
[mm]	[mm]	[mm]		[kg]	
1000	150	305	KD 305	54.5	133004
500	150	305	KD 305	25.7	07961
1000	150	480	KD 480	74.0	133047
500	150	480	KD 480	35.0	04926

## Inspection elements, 500 mm



Dimensions			Type	Weight	Article no.
Length	Width	Height			
[mm]	[mm]	[mm]		[kg]	
500	150	305	KD 305 A	29.7	07962
		480	KD 480 A	36.0	04927

## Channel body as dropped kerb and centrepiece for property entrances

- Dropped kerbs with 10% inclination (one-piece)
- Dropped kerbs with 5% inclination (two-piece)
- Centre stones with and without inlet opening



Description of the	Dimensions			Type	Weight	Article no.
	Length	Width	Height start/end			
	[mm]	[mm]	[mm]		[kg]	
Dropped kerb left (one-piece)	915	150	305/205	KD 305 left	49.5	07966
Dropped kerb left (two-piece), in accordance with DIN 18040-1	1000	150	255/205	KD 305 left L1-5	51.4	133033
	1000	150	305/255	KD 305 left L2-5	55.3	133034
Centre stone (without inlet opening)	1000	150	205	KD 305 Centre stone	45.0	3012805
Centre stone HD (without inlet openings)	1000	150/170	305	KD 305 Centre stone HD	50.0	3014336
Centre stone (with inlet opening)	1000	150	305	KD 305 Centre stone	42.0	3012804
Centre stone HD (with inlet openings)	1000	150/170	305	KD 305 Centre stone HD	49.0	3014335
Dropped kerb right (one-piece)	915	150	305/205	KD 305 right	48.5	07967
Dropped kerb right (two-piece), in accordance with DIN 18040-1	1000	150	255/205	KD 305 right R1-5	51.4	133038
	1000	150	305/255	KD 305 right R2-5	55.3	133039

### Channel body as dropped kerb and centrepiece for property entrances

- Dropped kerbs with 10% inclination (1-part)
- Centre blocks with and without inlet openings



Description of the	Dimensions			Type	Weight	Article no.
	Length	Width	Height start/end			
	[mm]	[mm]	[mm]		[kg]	
Dropped kerb left (1-piece)	915	150	480/375	KD 480 left	63.5	04931
Centre piece (with inlet opening)	915	150	375	KD 480 Centrepiece	61.0	49830
Centre piece (without inlet opening)	915	150	375	KD 480 Centrepiece	59.5	04933
Dropped kerb right (1-piece)	915	150	480/375	KD 480 right	63.5	04932

### Inlet chambers, 500 mm, class D 400

- MPA certificate for pressure tightness of the lip labyrinth seal (LLD) made of NBR
- Knock-out opening on both sides for channel connection KD 480
- Special designs (flat outlet to the rear) on request



Description of the	Dimensions			Pipe connection DN/ OD	Type	Weight	Article no.
	Length	Width	Height				
	[mm]	[mm]	[mm]	[mm]		[kg]	
Upper part	550	425	370	-	KD 305	93.0	152029
	550	390	505	-	KD 480	82.0	04928
Bottom part short form, LLD pipe connection	500	322	365	160	KD 305 and KD 480	28.5	01614
				200	KD 305 and KD 480	27.0	06190
Bottom part long form, LLD pipe connection	500	322	715	160	KD 305 and KD 480	49.9	03217
				200	KD 305 and KD 480	49.9	08565

### Channel body Buskerb, 1000 mm and 500 mm

- Shelf height 180 mm
- Overall length 1.0 m
- Gradient 6%
  - accessible buildings thanks to a maximum longitudinal inclination of 6%
- Slip-proof surface construction



Description of the	Dimensions			Type	Weight	Article no.
	Length	Width	Height start/end			
	[mm]	[mm]	[mm]		[kg]	
Buskerb left (1-piece)	1000	150	305/360	KD 305 left	63.5	3000948
Buskerb centre section (with inlet opening)	1000	150	360/360	KD 305 centre section	71.0	3000949
Buskerb right (1-piece)	1000	150	360/305	KD 305 right	63.5	3000950
Buskerb centre section (with inlet opening)	500	150	360/360	KD 305 centre section	36.0	3003724

# Accessories



Universal closing end cap  
(KD 305 and KD 480)

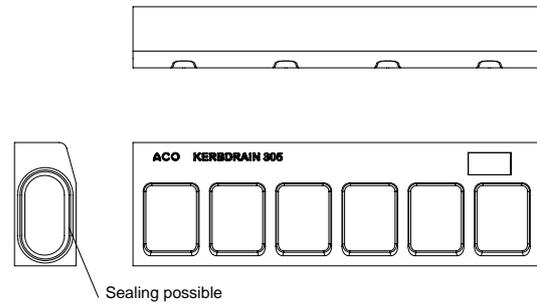
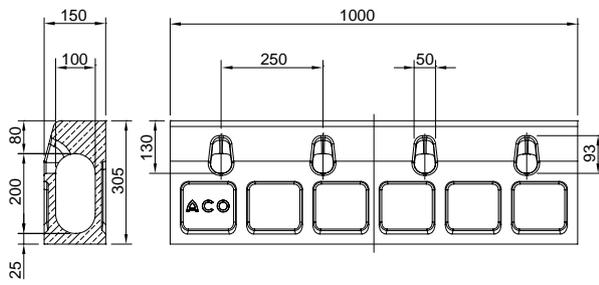


Universal closing end cap PP  
(KD 305 and KD 480)

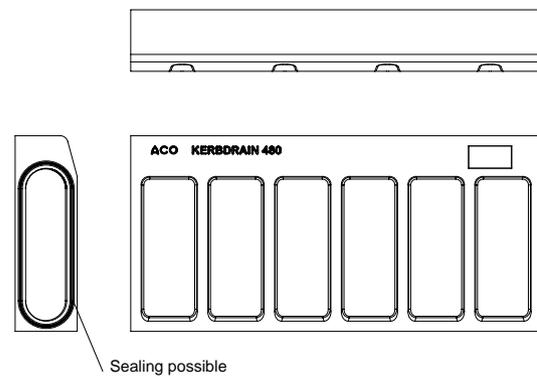
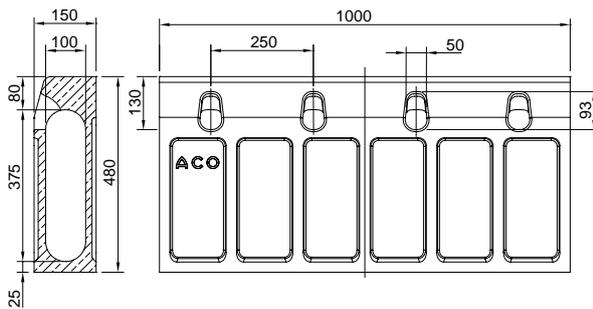


Silt bucket for inlet chamber  
in short form or long form

## Product drawing type KD 305



## Product drawing type KD 480



Material: Polymer concrete, grey through-dyed

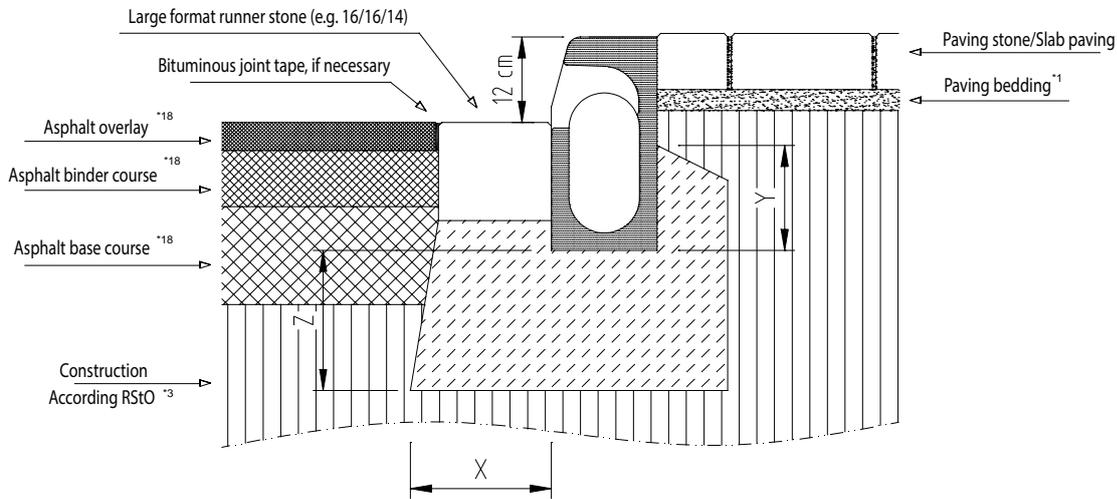
### Note on the material

With the coloured polymer concrete products of the ACO KerbDrain system (concrete grey), slight colour fading may occur on the surface construction after installation due to the effects of weathering. These purely visual changes do not affect the function or load capacity of the products in any way and therefore do not constitute a defect. Similar changes are known from asphalt pavements. Particularly in aesthetically demanding areas of application, it is advisable to take the expected changes into account at the planning stage.

# Installation at the road edge

## Class C 250/D 400, KD 305

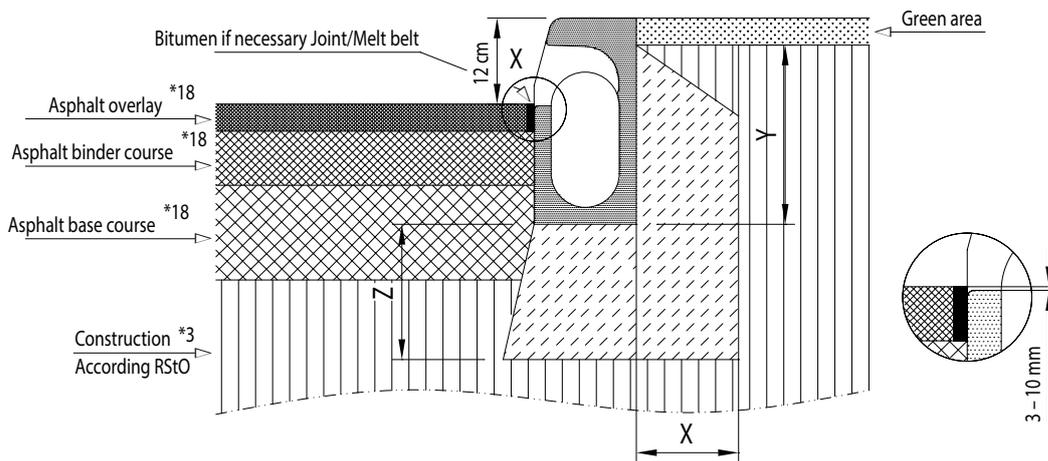
Examples from the installation instructions



Class	A 15	B 125	C 250	D 400
<b>Compressive strength class Foundation concrete</b> (according to DIN EN 1433)			≥ C 20/25	≥ C 25/30
<b>Exposure class foundation concrete * 16)</b> (according to DIN EN 206-1)			(X0)	(X0)
<b>Foundation dimensions - Type M</b> (according to DIN EN 1433)	<b>x [cm]</b>		≥ 15	≥ 20
	<b>y [cm] (KD 305)</b>		≥ 15	≥ 18
	<b>y [cm] (KD 485)</b>		≥ 33	≥ 36
	<b>z [cm]</b>		≥ 15	≥ 20

Only applies in connection with the general preliminary remarks and the index list of our installation instructions!  
Download at [www.aco-tiefbau.de](http://www.aco-tiefbau.de)

Drawing G1-E01-954-3, Version 04.15



Class	A 15	B 125	C 250	D 400
<b>Compressive strength class Foundation concrete</b> (according to DIN EN 1433)			≥ C 20/25	≥ C 25/30
<b>Exposure class foundation concrete * 16)</b> (according to DIN EN 206-1)			(X0)	(X0)
<b>Foundation dimensions - Type M</b> (according to DIN EN 1433)	<b>x [cm]</b>		≥ 15	≥ 20
	<b>y [cm] (KD 305)</b>		up to 5 cm below the top edge of the shelf	
	<b>y [cm] (KD 485)</b>		up to 5 cm below the top edge of the shelf	
	<b>z [cm]</b>		≥ 15	≥ 20

Only applies in connection with the general preliminary remarks and the index list of our installation instructions!  
Download at [www.aco-tiefbau.de](http://www.aco-tiefbau.de)

Drawing G1-E01-789-3, Version 06.22

In areas of property access roads with occasional lorry traffic, a back support must be provided on both sides of the central or crossing lane.

If there is frequent lorry traffic, we recommend installing the ACO DRAIN® Monoblock channel system in the access area instead.

## Flooding hotspots during heavy rainfall

Global climate change is altering the pattern of regional precipitation. Heavy rainfall events occur more and more frequently and lead to flooding in cities and cause great damage.



### A dangerous situation

The amount of water that can be absorbed by a single gully is limited by various factors. If a lot of water reaches the gully at the same time, a large proportion either flows over the gully or past it. This increases the inflow to the nearest road gully and thus leads to a wide body of water, which in turn causes the water to back up into the road surface. The risk of accidents is extremely high at these critical points. Silt buckets which are full of leaves and dirt increase the risk.

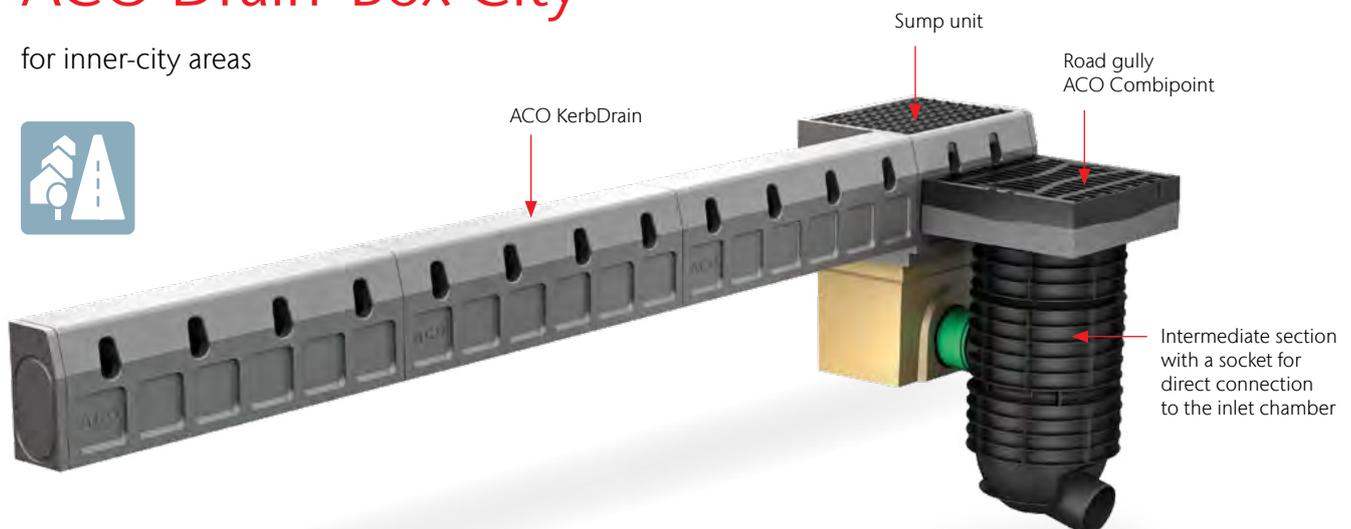


### The solution - ACO Drain®Box

ACO Drain®Box is the new solution module for dangerous flooding hotspots. The special feature is the combination of linear and point drainage. Up stream the gully, the lateral openings of the kerb channel along the kerb absorb part of the incoming water. With just a few metres of ACO KerbDrain, a significant hydraulic performance improvement is achieved. The connection of the kerb channel with the gully is made via the sump unit. Suitable for retrofitting, renovation and new construction projects.

## ACO Drain®Box City

for inner-city areas





**Heavy rainfall. Powerful product.**  
 ACO Drain®Box is a new concept for drainage solutions on roads and motorways. The risk of damage by flooding is reduced and traffic safety is increased.

#### Advantages of the ACO Drain®Box

- increased hydraulic performance by combining line and point drainage
- operational safety due to additional silt bucket.
- compatibility with existing road connections.
- more traffic safety
- less damage from flooding

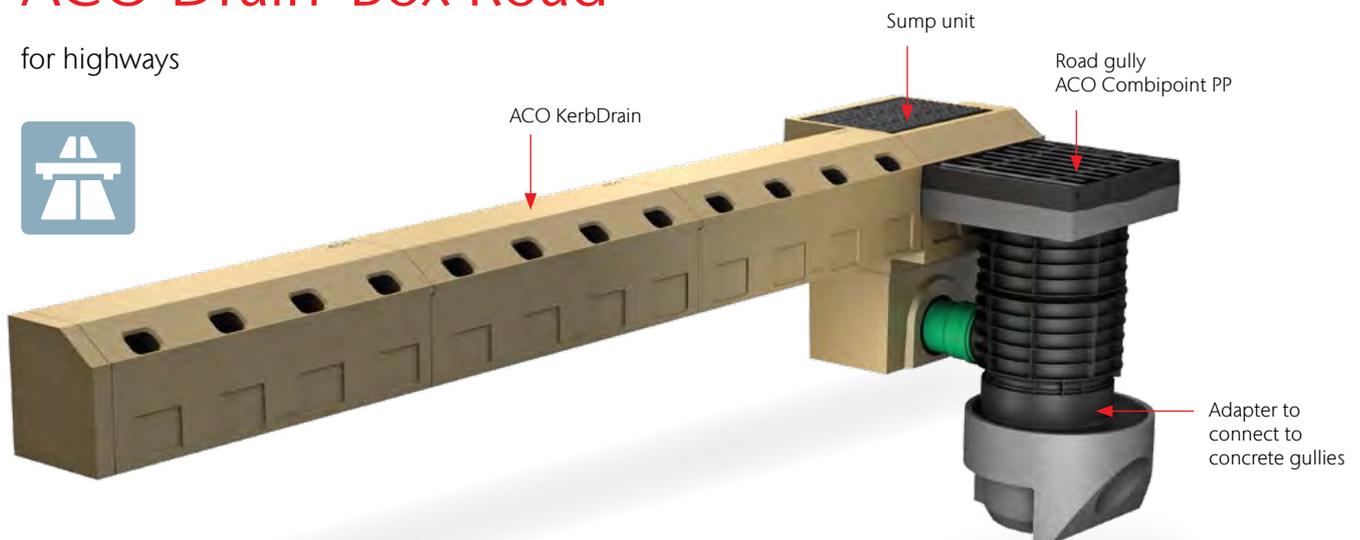
#### Hydraulic example calculation

- 2.0 % Longitudinal gradient
- connected surface = 400 m<sup>2</sup> according to RAS-Ew
- runoff coefficient = 0.9 according to RAS-Ew
- city of Braunschweig rainfall rain intensity 0 110l (s\*ha)
- runoff Q = 3.96 l/s
- 3 metre KerbDrain

↓  
**min. 23,5% less hydraulic load for the road gully**

## ACO Drain®Box Road

for highways





Kerb meets  
Drainage



City



**ACO KerbDrain City**

Nominal width: 100 mm  
Shelf height: 120 mm  
Overall height: 305 + 480 mm

Applications:

- Roads
- Car parks
- Bus stops
- Property access roads
- Drain®Box



Road



**ACO KerbDrain Road**

Nominal width: 200 mm  
Shelf height: 70 mm  
Overall height: 325 mm  
Half battered kerb/splayed kerb

Applications:

- Motorway
- Motorways
- Federal roads

# Wide range of applications for the KerbDrain family

The family of kerb channel is characterised by a wide range of applications. Initially only developed for use in urban areas, it is now also used on motorways, in tunnels and on bridges.

This attractive 2-in-1 drainage solution can therefore be used flexibly and is therefore becoming increasingly popular with planners and building owners. Did you know? Over 1,200,000 metres of hollow kerb channels have now been installed throughout Europe! Talk to us! We would be happy to support you with your project.  
info@aco-international.com  
www.swm.aco



Tunnel



**ACO KerbDrain Tunnel**

Nominal width: 200 mm  
Shelf height: 140 mm  
Overall height: 288 mm

- Applications:
- Tunnel
  - Trough structures
  - Subways



Bridge



**ACO KerbDrain Bridge**

Nominal width: 200 mm  
Shelf height: 75 mm  
Overall height: 155 mm

- Applications:
- Bridge structures

**NEW**  
**ACO KerbDrain Bridge City**  
15 cm board

# ask ACO



## Our range of services

Every project is different and has its own requirements and challenges. In addition to our products, we offer you our expertise and service to develop customised solutions together - from planning to support after completion.

ACO is your first point of contact in all project phases.



# ACO. we care for water

Intelligent drainage systems from ACO ensure that rainwater and wastewater are diverted or stored. We use innovative separation and filter technology to prevent water contamination. We accept the challenge of reusing water and thus ensuring a resource-saving cycle.

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