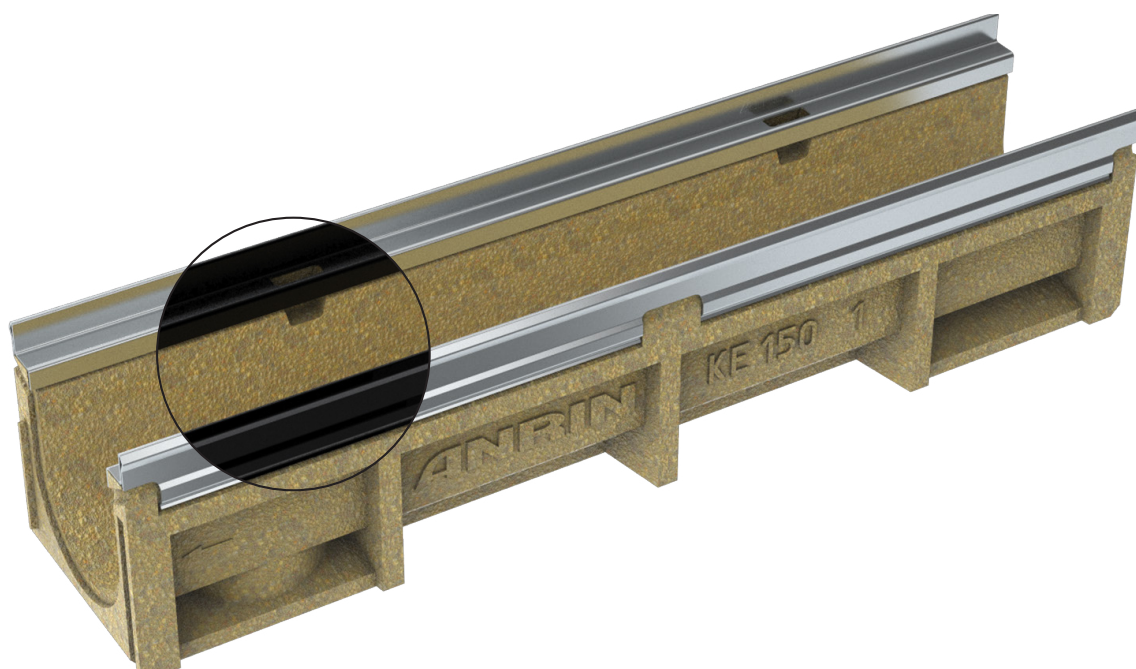


ANRIN

LEADING WATER



Technical data sheet

Reinforced edge channels
KE-150

Technical data sheet

ANRIN DRAIN Reinforced edge channels KE-150

Channel drainage for the load classes A 15 to E 600

According to DIN 19580 / EN 1433 "Drainage channels for vehicular and pedestrian areas", these surfaces are as-signed to specific load classes depending on the use. Accordingly, the respective suitable ANRIN reinforced edge system can be selected with the corresponding cover grating.

Product specifications

Product specifications	
Material	Resin concrete
Length	50 cm and 100 cm
Width	21.4 cm
Height	13.0 cm, 22.0 - 32.0 cm
Weight	9.5 - 25.5 kg
Edge type	Steel edge rail, 6 mm edge width; galvanised, stainless steel or cataphoretic dip-coated in black
Nominal width	150 mm
Load class	A15 to E600*
Slope type	Slope invert 0.5 %, Stepped invert, Constant invert
Joint type	UNILINK®-joint
Fastening	SnapLock fastening

Material properties

Channel / component body	
Polymer concrete	polyester resin-based with mineral aggregates, additives
Compressive strength	$\geq 90 \text{ N/mm}^2$
Bending tensile strength	$\geq 22 \text{ N/mm}^2$
Modulus of elasticity	ca. 25 kN/mm^2
Density	$2,1 - 2,3 \text{ g/dm}^3$
Heat resistance	100° C (permanent loading)
Frost resistance	- 50° C
Water penetration depth	0 mm
Water absorption:	0,05 %
Edge protection	
Edge protection	Galvanised steel, stainless steel, profile thickness 6 mm or cataphoretic dip-coated in black
Channel cover	
Rinnenabdeckung	Galvanised steel, V2A stainless steel, GJS cast-iron

Technical data sheet

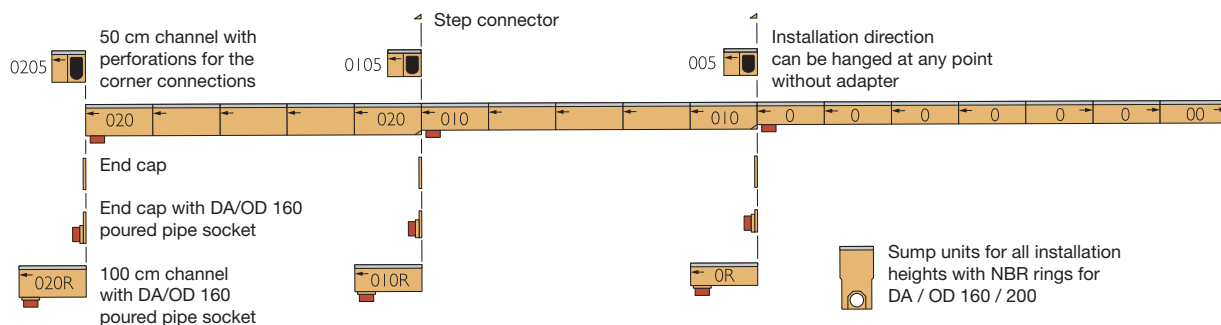
Reinforced edge channels

Slope types

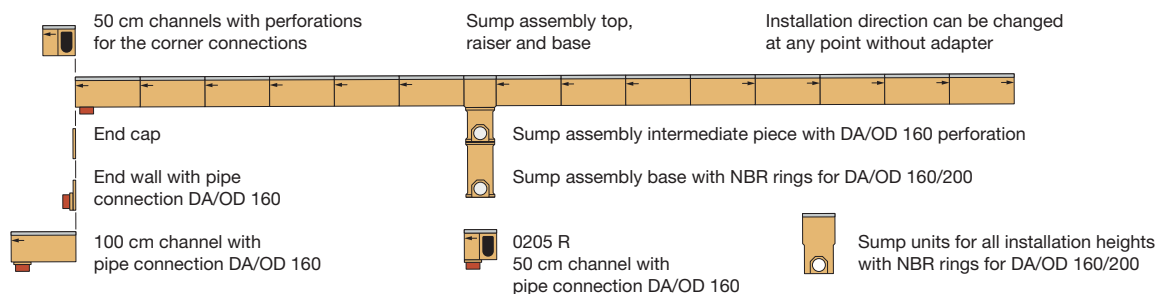
Area drainage with channel runs is normally made according to 3 different principles. The slope of water surface is achieved by the natural fall of the land. The water flows downwards with the gradient of the water level. A stepped invert is realised by an artificial gradient which is formed by the installation of stepped-height channels and connectors. The high flow rate with self-cleaning effect can be achieved with channels in natural slope.

All slope types can be combined according to hydraulic requirements and topographical conditions.

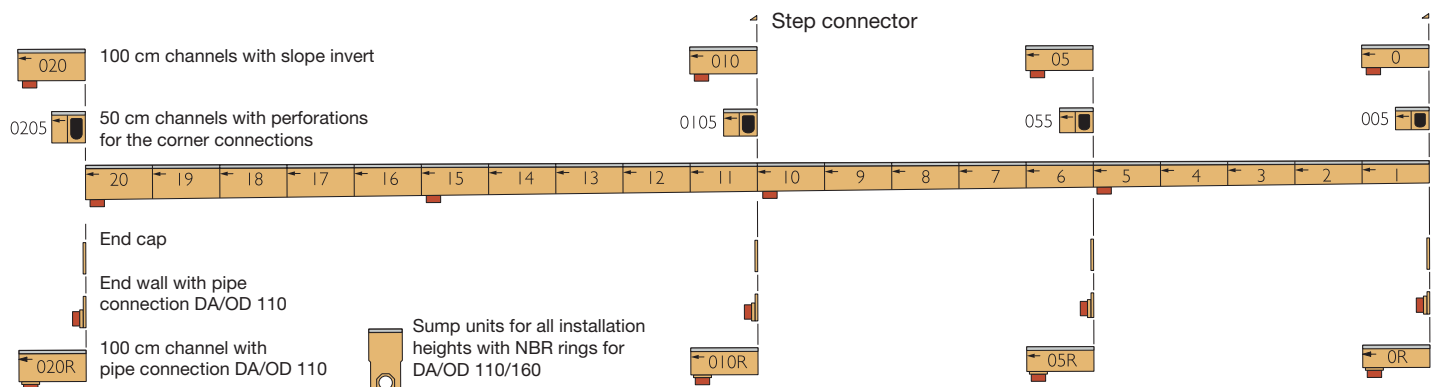
Stepped invert



Constant invert



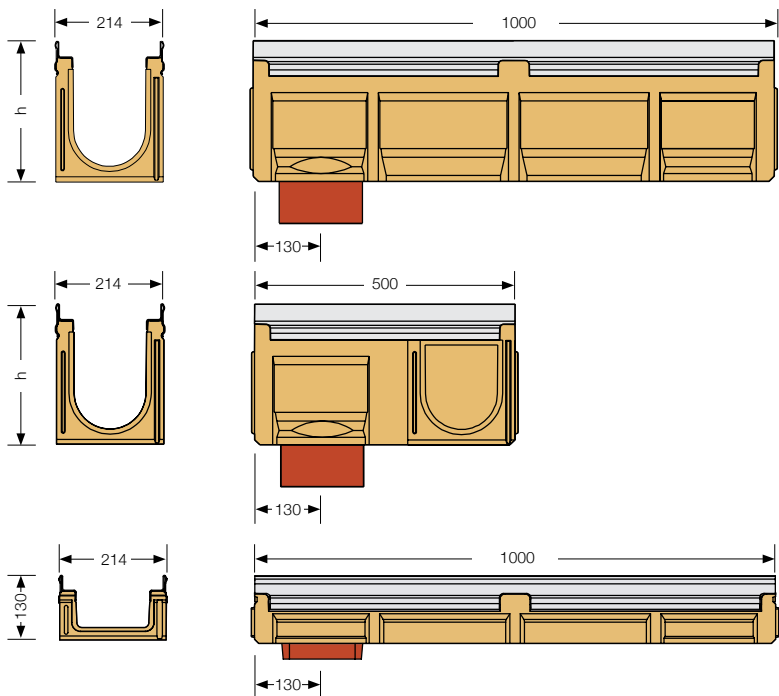
Slope invert



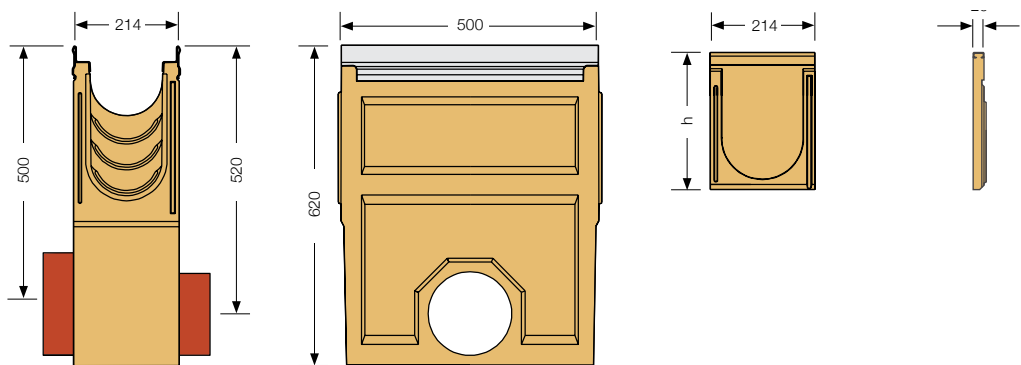
Technical data sheet

ANRIN DRAIN Reinforced edge channels KE-150

Channel dimensions



Accessories dimensions



Technical data sheet

ANRIN DRAIN Reinforced edge channels KE-150

Channel types – KE-150 with galvanised steel edge rail

Article no.	EAN	Designation		Slope %	Length cm	Width cm	Height cm	Weight kg
01111000	4026857011507	KE-150 Channel No.	0*	0	100	21.4	22.0	33.0
01111010	4026857012801	KE-150 Channel No.	0R***	0	100	21.4	22,0	33.0
01111050	4026857011514	KE-150 Channel No.	005**/*	0	50	21.4	22,0	17.9
01110010	4026857022718	KE-150 Channel No.	1*	0,5	100	21.4	22,5	30.3
01110020	4026857022725	KE-150 Channel No.	2*	0,5	100	21.4	23,0	30.6
01110030	4026857022732	KE-150 Channel No.	3*	0,5	100	21.4	23,5	30.9
01110040	4026857022749	KE-150 Channel No.	4*	0,5	100	21.4	24,0	31.2
01110050	4026857022756	KE-150 Channel No.	5*	0,5	100	21.4	24,5	31.5
01110060	4026857022763	KE-150 Channel No.	6*	0,5	100	21.4	25,0	31.8
01110070	4026857022770	KE-150 Channel No.	7*	0,5	100	21.4	25,5	32.1
01110080	4026857022787	KE-150 Channel No.	8*	0,5	100	21.4	26,0	32.4
01110090	4026857022794	KE-150 Channel No.	9*	0,5	100	21.4	26,5	32.7
01110100	4026857022800	KE-150 Channel No.	10*	0,5	100	21.4	27,0	33.0
01112000	4026857011521	KE-150 Channel No.	010*	0	100	21.4	27,0	35.6
01112010	4026857012818	KE-150 Channel No.	010R***	0	100	21.4	27,0	36.5
01112050	4026857011538	KE-150 Channel No.	0105*/*	0	50	21.4	27,0	19.0
01110110	4026857022817	KE-150 Channel No.	11*	0,5	100	21.4	27,5	35.5
01110120	4026857022824	KE-150 Channel No.	12*	0,5	100	21.4	28,0	35.8
01110130	4026857022831	KE-150 Channel No.	13*	0,5	100	21.4	28,5	36.1
01110140	4026857022848	KE-150 Channel No.	14*	0,5	100	21.4	29,0	36.4
01110150	4026857022855	KE-150 Channel No.	15*	0,5	100	21.4	29,5	36.7
01110160	4026857022862	KE-150 Channel No.	16*	0,5	100	21.4	30,0	37.0
01110170	4026857022879	KE-150 Channel No.	17*	0,5	100	21.4	30,5	37.3
01110180	4026857022886	KE-150 Channel No.	18*	0,5	100	21.4	31,0	37.6
01110190	4026857022893	KE-150 Channel No.	19*	0,5	100	21.4	31,5	37.9
01110200	4026857022909	KE-150 Channel No.	20*	0,5	100	21.4	32,0	38.2
01113000	4026857011545	KE-150 Channel No.	020*	0	100	21.4	32,0	38.6
01113010	4026857011552	KE-150 Channel No.	020R***	0	100	21.4	32,0	38.6
01113050	4026857012832	KE-150 Channel No.	0205*/*	0	50	21.4	32,0	20.9
01114000	4026857018155	KE-150 Channel No.	150P****	0	100	21.4	13,0	20.1
01114050	4026857019152	KE-150 Channel No.	150PR*****	0	100	21.4	13,0	20.1
01114100	4026857028963	KE-150 Channel No.	0170*	0	100	21.4	17,0	20.9

* Channel with mouldings for vertical outlet DA/OD 160

** Channel with sideways perforations for the connection of t-junctions, elbow joints and cross- over joints and vertical outlet

*** Channel with vertical pipe socket DA/OD 160

**** Channel with mouldings for vertical outlet DA/OD 110

***** Channel with vertical pipe socket DA/OD 110

Technical data sheet

ANRIN DRAIN Reinforced edge channels KE-150

Accessories – KE-150 with galvanised steel edge rail

Article no.	EAN	Designation		Length cm	Width cm	Height cm	Weight kg
01116000	4026857012740	KE-150 Sump unit with dirt trap bucket		50	21.4	62	54.0
03206810	4026857012450	Pipe socket DA/OD 160					0.6
03206820	4026857012702	Pipe socket DA/OD 200					0.8
03217000	4026857012467	KE-150 Closed end cap for channel No.	0 - 0205				1.5
03217050	4026857018742	KE-150 Closed end cap for channel No.	0				1.9
03217400	4026857019633	KE-150 Closed end cap for channel No.	150-P				1.1
03217600	4026857029052	KE-150 Closed end cap for channel No.	0170				1.2
03218100	4026857012474	KE-150 end cap with Pipe socket DA/OD 160 for No.	0				1.5
03218200	4026857012481	KE-150 end cap with Pipe socket DA/OD 160 for No.	010				1.5
03218300	4026857012498	KE-150 end cap with Pipe socket DA/OD 160 for No.	020				2.0
03218400	4026857019640	KE-150 end cap with Pipe socket DA/OD 70 for No.	150P				0.6
03217500	4026857012504	KE-150 Step connector for compensating level differences					0.5

Technical data sheet

ANRIN DRAIN Reinforced edge channels KE-150

Channel types – KE-150 with stainless steel edge rail

Article no.	EAN	Designation		Slope %	Length cm	Width cm	Height cm	Weight kg
01411000	4026857018780	KE-150 Channel No.	0*	0	100	21.4	22.0	33,0
01411010	4026857018797	KE-150 Channel No.	0R***	0	100	21.4	22.0	33,0
01411050	4026857018803	KE-150 Channel No.	005**/*	0	50	21.4	22.0	17,9
01410010	4026857023340	KE-150 Channel No.	1*	0,5	100	21.4	22.5	30,3
01410020	4026857023357	KE-150 Channel No.	2*	0,5	100	21.4	23.0	30,6
01410030	4026857023364	KE-150 Channel No.	3*	0,5	100	21.4	23.5	30,9
01410040	4026857023371	KE-150 Channel No.	4*	0,5	100	21.4	24.0	31.2
01410050	4026857023388	KE-150 Channel No.	5*	0,5	100	21.4	24.5	31.5
01410060	4026857023395	KE-150 Channel No.	6*	0,5	100	21.4	25.0	31.8
01410070	4026857023401	KE-150 Channel No.	7*	0.5	100	21.4	25.5	32.1
01410080	4026857023418	KE-150 Channel No.	8*	0.5	100	21.4	26.0	32.4
01410090	4026857023425	KE-150 Channel No.	9*	0.5	100	21.4	26,5	32.7
01410100	4026857023432	KE-150 Channel No.	10*	0.5	100	21.4	27.0	33.0
01412000	4026857018810	KE-150 Channel No.	010*	0	100	21.4	27.0	35.6
01412010	4026857018865	KE-150 Channel No.	010R***	0	100	21.4	27.0	35.5
01412050	4026857018872	KE-150 Channel No.	0105**/*	0	50	21.4	27.0	19.0
01410110	4026857023449	KE-150 Channel No.	11*	0.5	100	21.4	27.5	35.5
01410120	4026857023456	KE-150 Channel No.	12*	0.5	100	21.4	28.0	35.8
01410130	4026857026808	KE-150 Channel No.	13*	0.5	100	21.4	28.5	36.1
01410140	4026857023470	KE-150 Channel No.	14*	0.5	100	21.4	29.0	36.4
01410150	4026857023487	KE-150 Channel No.	15*	0.5	100	21.4	29.5	36.7
01410160	4026857023494	KE-150 Channel No.	16*	0.5	100	21.4	30.0	37.0
01410170	4026857023500	KE-150 Channel No.	17*	0.5	100	21.4	30.5	37.3
01410180	4026857023517	KE-150 Channel No.	18*	0.5	100	21.4	31.0	37.6
01410190	4026857023524	KE-150 Channel No.	19*	0.5	100	21.4	31.5	37.9
01410200	4026857023531	KE-150 Channel No.	20*	0.5	100	21.4	32.0	38.2
01413000	4026857018889	KE-150 Channel No.	020*	0	100	21.4	32.0	38.6
01413010	4026857018902	KE-150 Channel No.	020R***	0	100	21.4	32.0	38.9
01413050	4026857018919	KE-150 Channel No.	0205**/*	0	50	21.4	32.0	20.9
01414000	4026857018926	KE-150 Channel No.	150P****	0	100	21.4	13.0	20.1
01414050	4026857019169	KE-150 Channel No.	150PR*****	0	100	21.4	13.0	20.1
01414100	4026857030607	KE-150 Channel No.	0170*	0	100	21.4	17.0	20.9

* Channel with mouldings for vertical outlet DA/OD 160

** Channel with sidewise perforations for the connection of t-junctions, elbow joints and cross- over joints and vertical outlet

*** Channel with vertical pipe socket DA/OD 160

**** Channel with mouldings for vertical outlet DA/OD 110

***** Channel with vertical pipe socket DA/OD 110

Technical data sheet

ANRIN DRAIN Reinforced edge channels KE-150

Accessories – KE-150 with stainless steel edge rail

Article no.	EAN	Designation		Length cm	Width cm	Height cm	Weight kg
01116000	4026857012740	KE-150 Sump unit with dirt trap bucket		50	21.4	62	54.0
03206810	4026857012450	Pipe socket DA/OD 160					0.6
03206820	4026857012702	Pipe socket DA/OD 200					0.8
01417000	4026857019077	KE-150 Closed end cap for channel No.	0 - 0205				1.5
01417050	4026857020639	KE-150 Closed end cap for channel No.	0				1.9
01417400	4026857020226	KE-150 Closed end cap for channel No.	150-P				1.3
01417600	4026857032618	KE-150 Closed end cap for channel No.	0170				1.3
01418100	4026857018957	KE-150 end cap with Pipe socket DA/OD 160 for No.	0				1.5
01418200	4026857018964	KE-150 end cap with Pipe socket DA/OD 160 for No.	010				1.5
01418300	4026857018971	KE-150 end cap with Pipe socket DA/OD 160 for No.	020				2.0
01418400	4026857020417	KE-150 end cap with Pipe socket DA/OD 70 for No.	150P				1.5
03217500	4026857012504	KE-150 Step connector for compensating level differences					0.5

Technical data sheet

ANRIN DRAIN Reinforced edge channels KE-150

Channel types – KE-150 with black cataphoretic dip coated steel

Article no.	EAN	Designation		Slope %	Length cm	Width cm	Height cm	Weight kg
01511000	4026857026891	KE-150 Channel No.	0*	0	100	21.4	22.0	33.0
01511010	4026857026907	KE-150 Channel No.	0R***	0	100	21.4	22.0	33.0
01511050	4026857026914	KE-150 Channel No.	005**/*	0	50	21.4	22.0	17.9
01510010	4026857026686	KE-150 Channel No.	1*	0.5	100	21.4	22.5	30.3
01510020	4026857026693	KE-150 Channel No.	2*	0.5	100	21.4	23.0	30.6
01510030	4026857026709	KE-150 Channel No.	3*	0.5	100	21.4	23.5	30.9
01510040	4026857026716	KE-150 Channel No.	4*	0.5	100	21.4	24.0	31.2
01510050	4026857026723	KE-150 Channel No.	5*	0.5	100	21.4	24.5	31.5
01510060	4026857026730	KE-150 Channel No.	6*	0.5	100	21.4	25.0	31.8
01510070	4026857026747	KE-150 Channel No.	7*	0.5	100	21.4	25.5	32.1
01510080	4026857026754	KE-150 Channel No.	8*	0.5	100	21.4	26.0	32.4
01510090	4026857026761	KE-150 Channel No.	9*	0.5	100	21.4	26.5	32.7
01510100	4026857026778	KE-150 Channel No.	10*	0.5	100	21.4	27.0	33.0
01512000	4026857026921	KE-150 Channel No.	010*	0	100	21.4	27.0	35.6
01512010	4026857026938	KE-150 Channel No.	010R***	0	100	21.4	27.0	36.5
01512050	4026857026945	KE-150 Channel No.	0105**/*	0	50	21.4	27.0	19.0
01510110	4026857026785	KE-150 Channel No.	11*	0.5	100	21.4	27.5	35.5
01510120	4026857026792	KE-150 Channel No.	12*	0.5	100	21.4	28.0	35.8
01510130	4026857026815	KE-150 Channel No.	13*	0.5	100	21.4	28.5	36.1
01510140	4026857026822	KE-150 Channel No.	14*	0.5	100	21.4	29.0	36.4
01510150	4026857026839	KE-150 Channel No.	15*	0.5	100	21.4	29.5	36.7
01510160	4026857026846	KE-150 Channel No.	16*	0.5	100	21.4	30.0	37.0
01510170	4026857026853	KE-150 Channel No.	17*	0.5	100	21.4	30.5	37.3
01510180	4026857026860	KE-150 Channel No.	18*	0.5	100	21.4	31.0	37.6
01510190	4026857026877	KE-150 Channel No.	19*	0.5	100	21.4	31.5	37.9
01510200	4026857026884	KE-150 Channel No.	20*	0.5	100	21.4	32.0	38.2
01513000	4026857026952	KE-150 Channel No.	020*	0	100	21.4	32.0	38.6
01513010	4026857026969	KE-150 Channel No.	020R***	0	100	21.4	32.0	38.6
01513050	4026857026976	KE-150 Channel No.	0205**/*	0	50	21.4	32.0	20.9
01514000	4026857026983	KE-150 Channel No.	150P****	0	100	21.4	13.0	20.1
01514050	4026857026990	KE-150 Channel No.	150PR*****	0	100	21.4	13.0	20.1

* Channel with mouldings for vertical outlet DA/OD 160

** Channel with sidewise perforations for the connection of t-junctions, elbow joints and cross- over joints and vertical outlet

*** Channel with vertical pipe socket DA/OD 160

**** Channel with mouldings for vertical outlet DA/OD 110

***** Channel with vertical pipe socket DA/OD 110

Technical data sheet

ANRIN DRAIN Reinforced edge channels KE-150

Accessories – KE-150 with black cataphoretic dip coated steel edge rail

Artikel Nr.	EAN	Beschreibung		Länge cm	Breite cm	Höhe cm	Gewicht kg
01516000	4026857027003	KE-150 Sump unit with dirt trap bucket		50	21.4	62	54
03206810	4026857012450	Pipe socket DA/OD 160					0.6
03206820	4026857012702	Pipe socket DA/OD 200					0.8
01517000	4026857027072	KE-150 Closed end cap for No.	0-020				1.5
01518100	4026857027089	KE-150 end cap with Pipe socket DA/OD 160 for No.	0				1.5
01518200	4026857027096	KE-150 end cap with Pipe socket DA/OD 160 for No.	010, 0105				1.3
01518300	4026857027102	KE-150 end cap with Pipe socket DA/OD 160 for No.	020, 0205				2.0
03217500	4026857012504	KE-150 Step connector for compensating level differences					0.5

Technical data sheet

ANRIN DRAIN Reinforced edge channels KE-150

Cover gratings – KE-150



Slotted grating HEELGUARD

cast iron (coated in black)
Length: 50 cm, SW 6 mm

Load classes:
D400*



Longitudinal Grating

cast iron GJS (cataphoretic dip coating)
c: 50 cm,
MW 25 x 11 mm

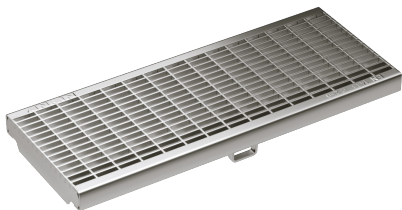
Load classes:
D400*, E600*



Slotted cast iron grating OvalGrip Design

cast iron GJS (cataphoretic dip coating)
Length: 50 cm, SW 12 mm

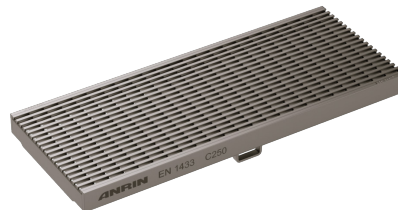
Load classes:
D400*, E600*



Mesh grating

stainless steel (galvanised)
Length: 50 cm, 100 cm
MW 30 x 10 mm / 20 x 20 mm

Load classes:
C250, D400*



ongitudinal profile grating

stainless steel
Length: 50 cm, 100 cm
SW 5 mm

Load classes:
C250

* Ausnahme: Keine Querentwässerung von stark befahrenen Straßen / SW = Schlitzweite / MW = Maschenweite

Technical data sheet

ANRIN DRAIN Reinforced edge channels KE-150

Cover gratings cl. **C250** with SnapLock fastening

Article no.	EAN	Designation	Length cm	Width cm	Inlet Ø cm ² /m	Weight kg
01114500	4026857011569	Mesh grating, galvanised steel, MW 30 x 10	100	20	1240	9.8
01114520	4026857011576	Mesh grating, galvanised steel, MW 30 x 10	50	20	1240	4.4
01114540	4026857017684	Mesh grating, stainless steel, MW 20 x 20	100	20	1240	9.5
01114560	4026857017691	Mesh grating, stainless steel, MW 20 x 20	50	20	1240	4.9
01114640	4026857032267	Longitudinal profile grating, stainless steel, SW 5 mm	100	20	814	9.5
01114660	4026857032274	Longitudinal profile grating, stainless steel, SW 5 mm	50	20	814	4.9

Cover gratings cl. **D400**¹ with SnapLock fastening

Article no.	EAN	Designation	Länge cm	Width cm	Inlet Ø cm ² /m	Weight kg
01115300	4026857021773	Mesh grating, galvanised steel, MW 20 x 20	100	20	1170	9.8
01115320	4026857021803	Mesh grating, galvanised steel, MW 20 x 20	50	20	1170	5.0
01115400	4026857021780	Mesh grating, stainless steel, MW 20 x 20	100	20	1170	9.5
01115420	4026857021797	Mesh grating, stainless steel, MW 20 x 20	50	20	1170	4.9
01115220	4026857021582	Slotted cast iron grating with OvalGrip Design, cast iron GJS	50	20	760	7.1
01115620	4026857026273	Longitudinal Cast-Iron Grating, MW 25 x 11 mm	50	20	700	7.8
01115230	4026857030058	Slotted grating, HEELGUARD, cast iron, coated in black	50	20	430	8.0

Cover gratings cl. **E600**¹ with SnapLock fastening

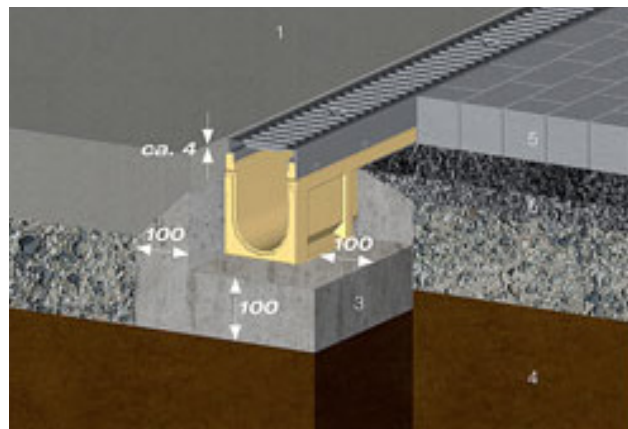
Article no.	EAN	Designation	Length cm	Width cm	Inlet Ø cm ² /m	Weight kg
01115120	4026857011613	Slotted cast iron grating with OvalGrip Design, cast iron GJS	50	20	760	9.3
01115520	4026857026570	Longitudinal Cast-Iron Grating, MW 25 x 11 mm	50	20	700	7.8

ANRIN DRAIN Reinforced edge channels

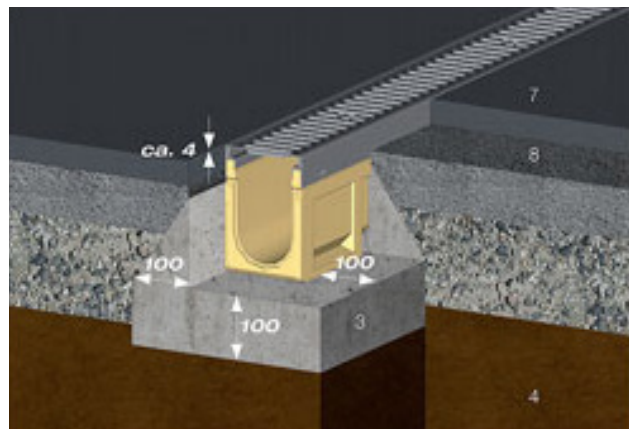
Example installations

The following installation guidelines are schematic representations. These are provided as examples and are non-binding. The information provided here is based on our long-term experience in excavation and road construction as well as the state-of-the-art technology. Despite this, designers and planners are always obligated to check the products and the installation instructions for their appropriateness. The example details are simplified recommendations for execution. Constructions are to be re-created on a project-specific basis.

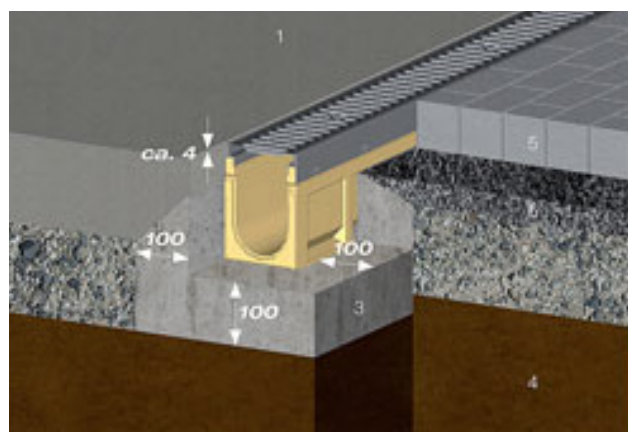
Important: Insert gratings for the installation.

Load class **A 15**

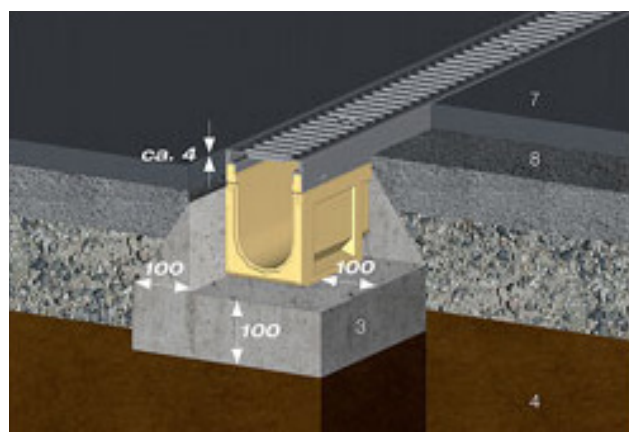
Road concrete and / or concrete sheets or paving bed



Cast asphalt

Load class **B125**

Road concrete and / or concrete sheets or paving bed



Cast asphalt

- 1 In-situ road concrete
- 2 Base course
- 3 Concrete cladding of the channel body B 25
Concrete class C12/15 (A 15 – C 250)
Concrete class C12/25 (D 400 – E 600)
- 4 Foundation, mature soil
- 5 Prefabricated concrete sheets and / or stone systems

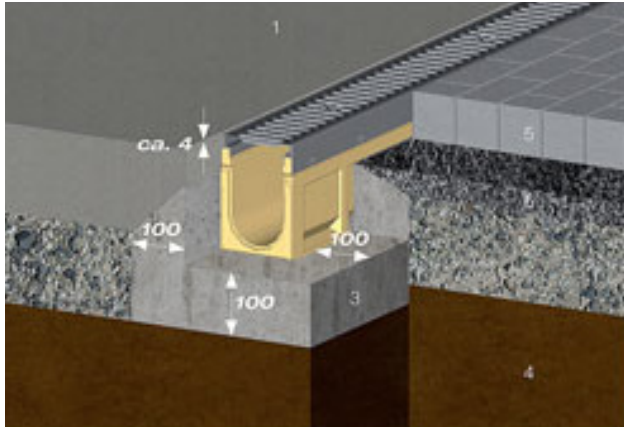
- 6 Paving bed
- 7 Wearing course
- 8 Bonding course
- 9 Bitumen base course

All length specifications in millimetres

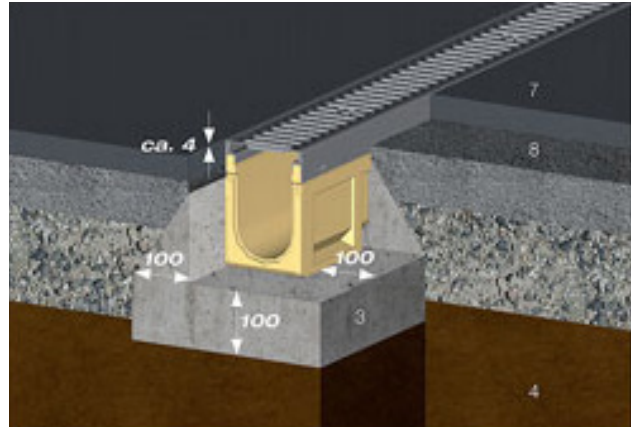
Technical data sheet

ANRIN DRAIN Reinforced edge channels

Load class **C250**

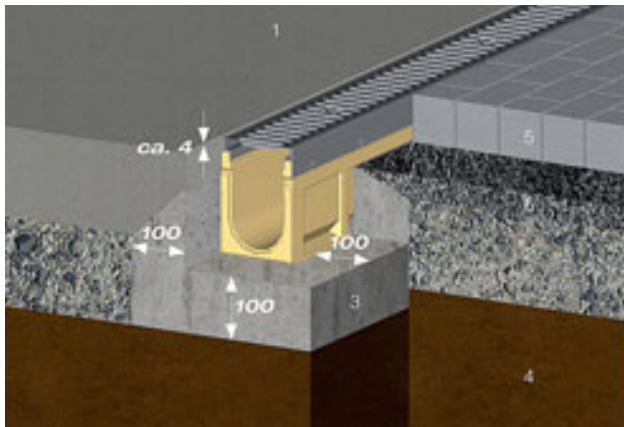


Road concrete and / or concrete sheets or paving bed

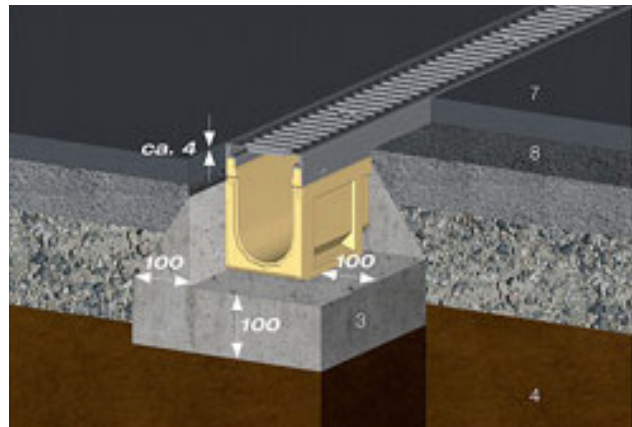


Cast asphalt

Load class **D400* - E600*** (Exception: Cross-road drainage of busy roads)



Road concrete and / or concrete sheets or paving bed



Cast asphalt

- 1 In-situ road concrete
- 2 Base course
- 3 Concrete cladding of the channel body B 25
Concrete class C12/15 (A 15 – C 250)
Concrete class C12/25 (D 400 – E 600)
- 4 Foundation, mature soil
- 5 Prefabricated concrete sheets and / or stone systems

- 6 Paving bed
- 7 Wearing course
- 8 Bonding course
- 9 Bitumen base course

All length specifications in millimetres

Guidelines and regulations

- | | |
|---------------|---|
| DIN EN 1433 | "Drainage channels for vehicular and pedestrian areas" |
| DIN 19580 | "Drainage channels for vehicular and pedestrian areas ..." |
| RStO | "Guidelines for the standardisation of the superstructure of vehicular areas" |
| DIN EN 206-1 | "Concrete. Specification, performance, production and conformity" |
| DIN EN 1045-2 | "Concrete, reinforced and prestressed concrete structures.
Part 2: Concrete – Specification, properties, production and conformity;
Application rules for DIN EN 206-1" |



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