



ACO DRAIN® ParkDeck - drainage  
for multi-level parking buildings  
and underground garages





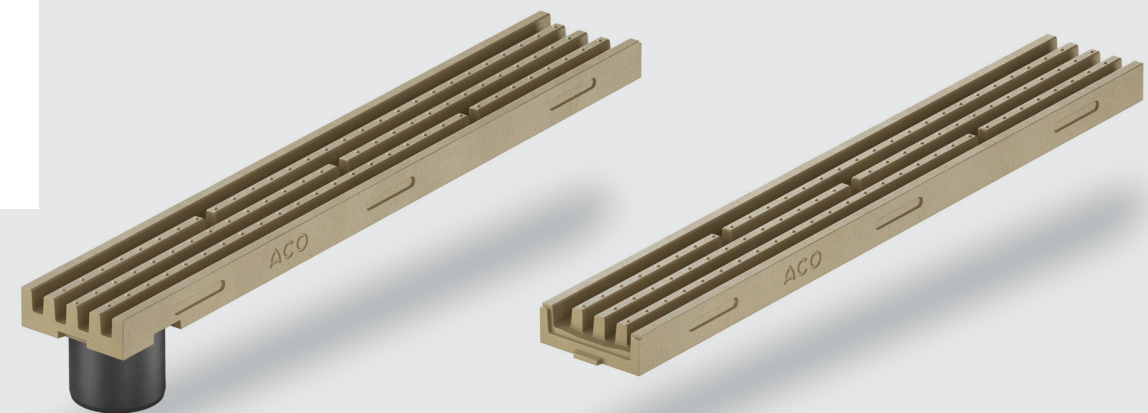
ACO DRAIN® ParkDeck channels

These channels have been developed specially for the drainage of multi-level parking buildings and underground garages. Channels are made according to EN1433, load class A15 - C250, completely made of ACO polymer concrete that is frost, salt and chemicals resistant.

ACO DRAIN® Multislot 150

Monolithic low comb channel

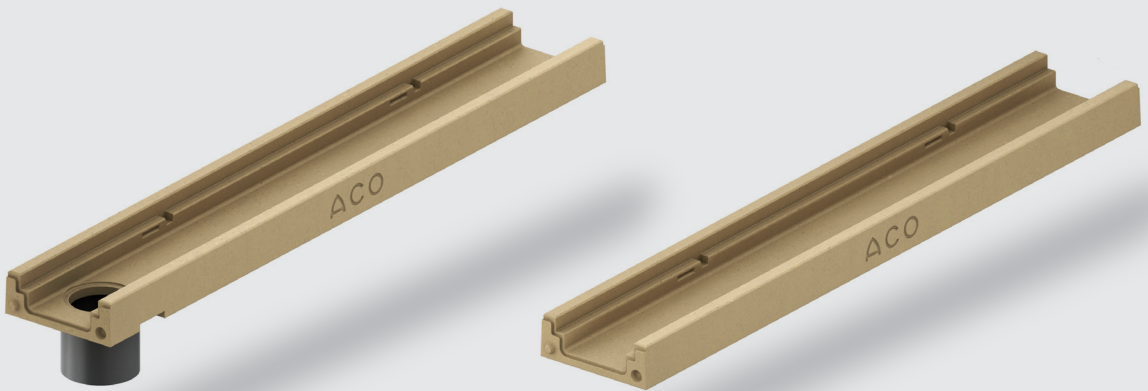
See more on page 6



ACO DRAIN® Deckline P

Parking houses and underground garages channel

See more on page 9

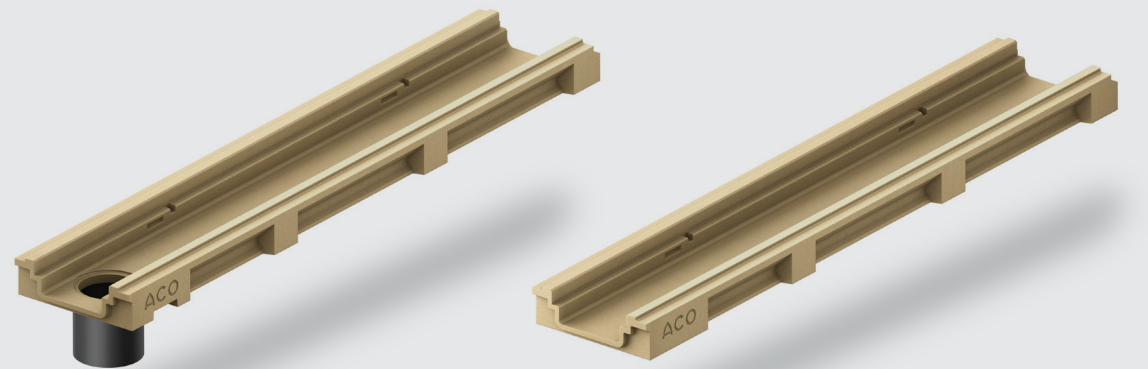


NEW!

ACO DRAIN® Deckline P OS

Parking houses and underground garages channel with extended edge

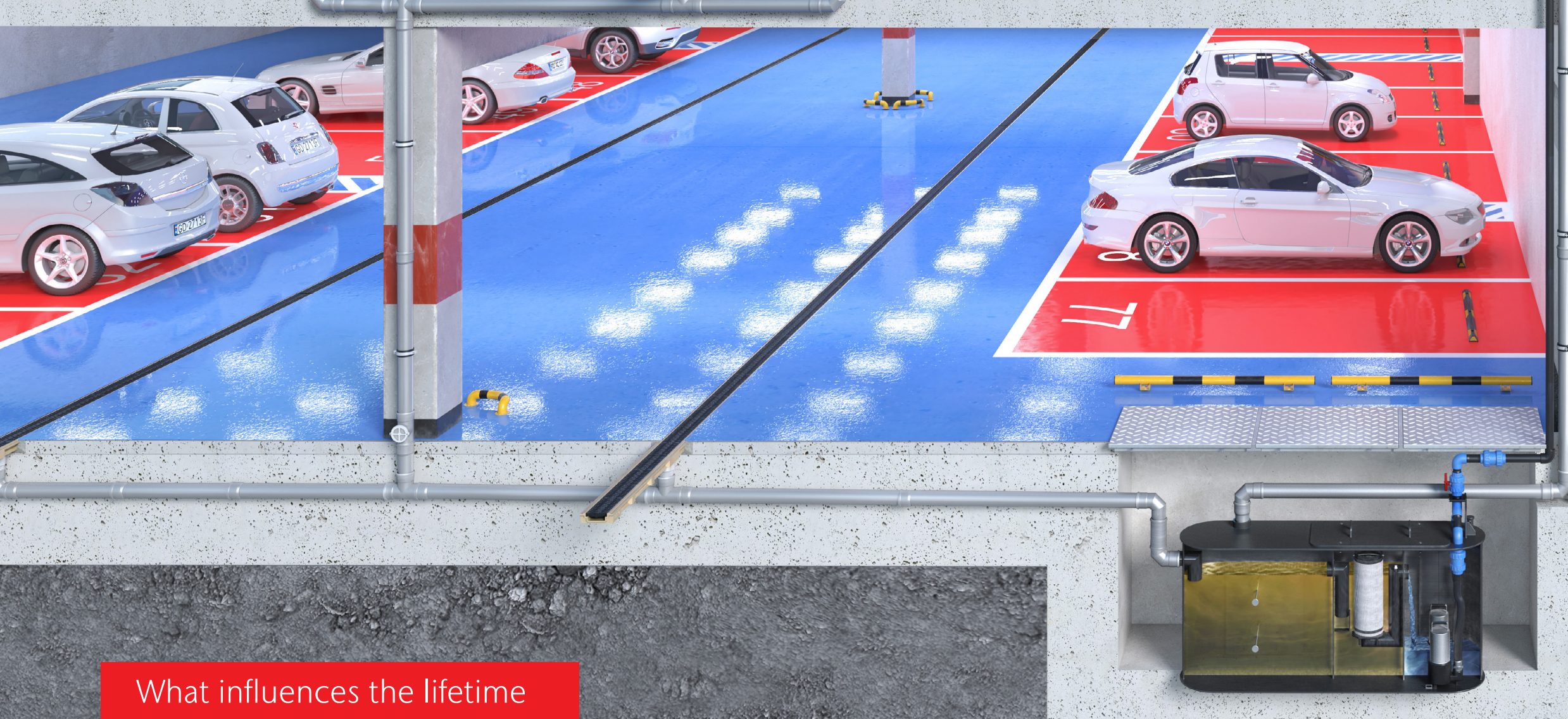
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## What influences the lifetime of drainage in parkdecks?

Water in parking buildings usually comes from dripping water and melting snow from cars. The incidental amount depends on traffic frequency, season and length of the driveway or entrance to the building. The drainage system needs to collect this water which can be contaminated with petrol, oil, and – most important – de-icing salt. Unlike outside, where rain can sweep away these salts, inside the building it remains in the drainage channel after the water evaporates. To prevent early corrosion, ACO DRAIN® Parkdeck channels are made from only highly resistant materials. Suitable gratings if needed are made from galvanized steel or stainless steel. For the lifetime of the building ACO strongly recommends exclusively using run-off drainage systems channels like Multislot 150, Deckline P and Deckline P OS which are designed for easy maintenance and cleaning in parking facilities.

## What are the key factors of effective parkdeck drainage?

Areas such as parkdecks are usually associated with different types of buildings, e.g. shopping centers, offices, public facilities or residential buildings. Multi-level parking areas come with specific characteristics and specific requirements due to their construction, such as:

### Water tightness:

Water from leaking drainage systems can seriously damage the building structure. Only 100% water tight systems are suitable for parking buildings.

### Installation height:

Shallow slab constructions require drainage systems with a shallow maximum installation height.

### Dynamic forces:

Turning or accelerating wheels and a high traffic frequency cause immense dynamic forces. Load classes up to C250 and it must be proven that the products are durable and robust enough for this challenging environment.

### Zero Aggressive conditions:

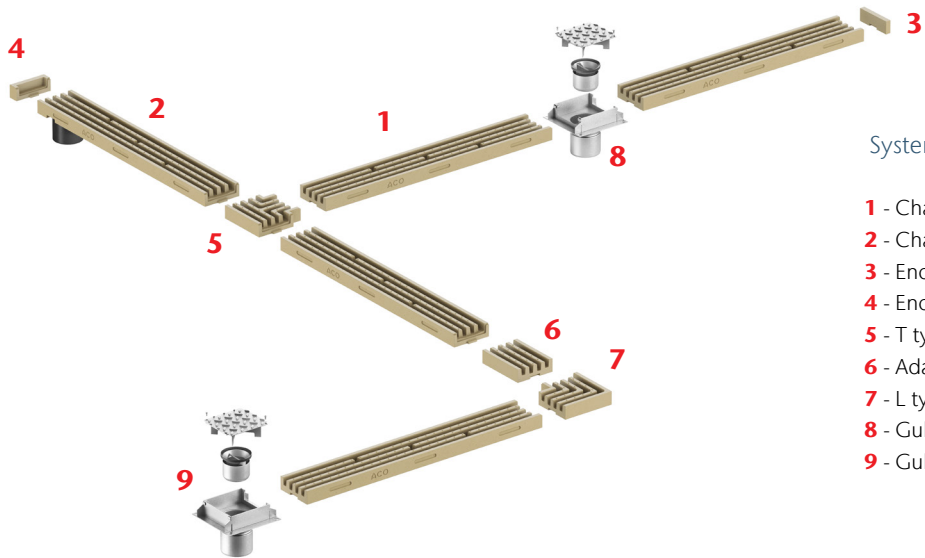
Emulsions of water with dirt, oil and de-icing salt require resistant materials to avoid corrosion or early wearing.





ACO DRAIN® Multislot 150

Monolithic low comb channel



System components

- 1 - Channel
- 2 - Channel with outlet
- 3 - End cap - beginning of the channel
- 4 - End cap - end of the channel
- 5 - T type connection
- 6 - Adapter
- 7 - L type connection
- 8 - Gully including cover and FAT
- 9 - Gully end including cover and FAT

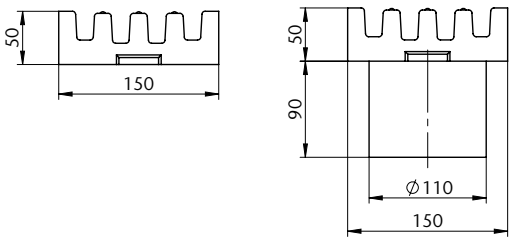
Typical applications

- Underground car garages
- Underground multi-level car parks
- Shall be used mostly for evaporation of water in garages

Product benefits:

- Polymer concrete system, easy to seal
- Corrosion resistant system
- Fast and easy assembly
- No moving parts that can cause noise
- Recommended solution for concrete and asphalt surfaces
- Low height with minimum impact to the floor structure
- ACO SF safety groove at both ends to make channels 100% watertight
- Lighter solution than other polymer concrete channels
- Line shape variations made by using different kind of an accessories connections
- Could be cut on demand to required shapes
- Easy to clean using common accessories
- Friendly for wheelchairs and bicycles



Multislot 150








Product information

- Maximum load class: C 250
- Channel material: polymer concrete
- Channel profile - comb
- Channel type: no slope
- Edges: Polymer concrete
- Certificated by EN1433
- Channel height: 50 mm

Multislot channel







Product	Dimensions						Item no.
	Length	Width	Height	Weight	PU		
	mm	mm	mm	kg	pcs./pallet		
	Multislot channel	1000	150	50	12,30	40	135213
	Multislot channel with outlet	1000	150	50	12,10	40	135214

Accessories

Product	Dimensions						Item no.
	Length	Width	Height	Weight	PU		
	mm	mm	mm	kg	pcs./pallet		
	Multislot end cap beginning of the channel	20	150	50	0,35	20	135215
	Multislot end cap end of the channel	40	150	50	0,51	20	135216
	Multislot L type connection element	200	200	50	3,00	45	135226
	Multislot T type connection element	200	200	50	2,90	45	135227
	Multislot adapter to change laying direction	200	150	50	2,50	54	135228



Accessories

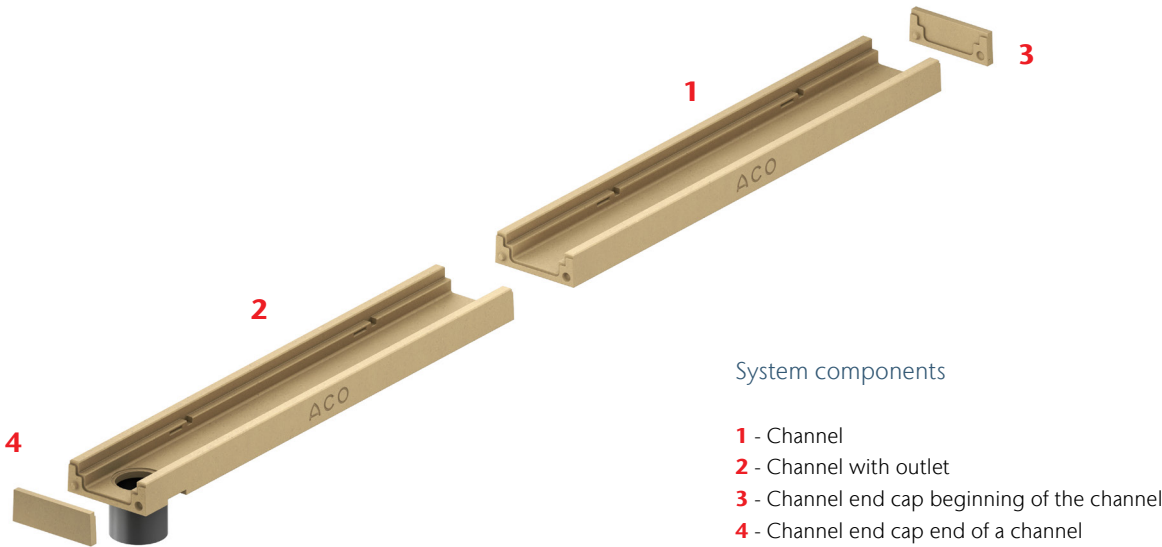
Product	Dimensions				PU	Item no.	
	Length	Width	Height	Weight			
	mm	mm	mm	kg	pcs./pallet	natural	
	Multislot 150 gully including cover and FAT	215	215	179	2,90	30	449195
	Multislot 150 gully end including cover and FAT	215	215	179	3,00	30	449196
	Multislot 150 installation cover, t=1	1000	150	25,7	1,80	100	449197
	Multifix 1 - galvanized steel	100	310	331	1,50	100	448753*
	Multifix 1 - stainless steel	100	310	331	1,81	100	447813*
	EG raising piece with double clam. flange DN100	360	360	250	4,00	40	01043
	Polyester bonding compound				0,90	10	02163

\*Installation recommendations for Multifix 1, Multifix 2 and Multifix 3 to be found on page 24 and 25



ACO DRAIN® Deckline P

Shallow channel for multi-level parking buildings and underground garages



System components

- 1 - Channel
- 2 - Channel with outlet
- 3 - Channel end cap beginning of the channel
- 4 - Channel end cap end of a channel

Typical applications

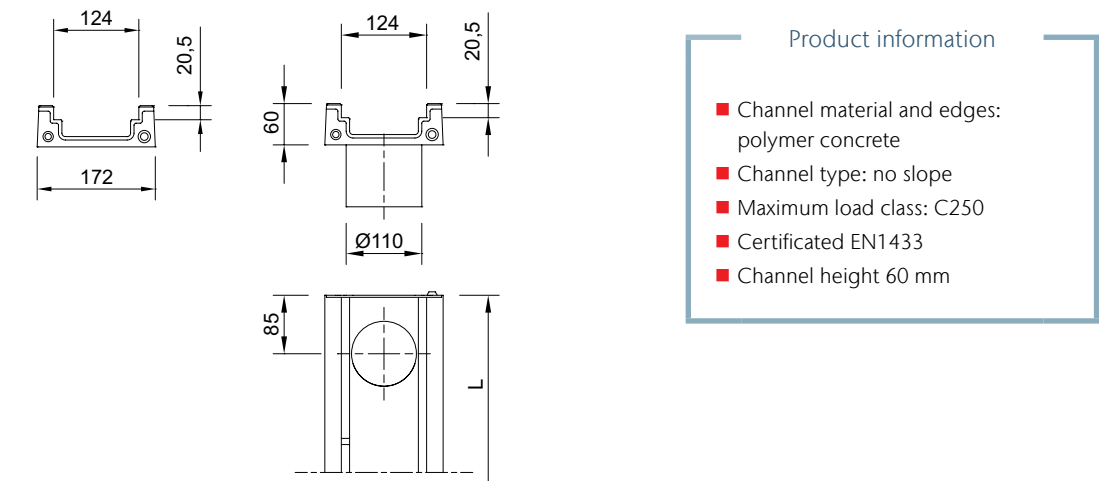
- Underground car garages
- Parking houses and multi-level car parks

Product benefits:

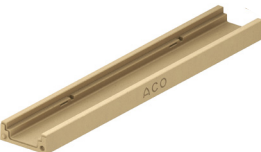

- Polymer concrete system, easy to seal
- Corrosion resistant system with no steel parts
- Easy assembly
- Recommended solution for concrete surfaces
- Low height with minimum impact to floor structure
- ACO SF safety groove at both ends to make channels 100% watertight
- Connected with Drainlock system grating for easy assembly and disassembly
- Pre-treated adhesive surface for 100% watertight bonding and bond strength






Deckline P100









Deckline P100

Product	Dimensions						PU	Item no.
	Length	Width NW/100	Width	Height	Weight			
	mm	mm	mm	mm	kg	pcs./pallet		
	Deckline P100	1000	100	172	60	12,10	40	135070
	Deckline P100 with outlet	1000	100	172	60	11,70	20	135071

Accessories

 Deckline P100 end caps beginning / end of the channel	20		172	60	0,40	24		135076
 Deckline P100 end caps with pipe DN 50 Stainless steel 1.4301	42		175	75	0,24	105		449188
 Deckline P100 end caps with pipe DN 50 Galvanized steel 1.3007	42		175	75	0,23	105		449189

Extended accessories

Product		Dimensions					Item no.
		Length	Width	Height	Weight	PU	
		mm	mm	mm	kg	pcs./pallet	
	EG raising piece with double clam. flange DN 100	360	360	250	4,00	40	01043
	FAT for Deckline P	73	80	87	0,30	100	445989
	ACO DRAIN® Silt basket for vertical outlet D110	125	88	76	0,29	55	132378
	Sieve for Deckline P		90	4	0,11	25	445988
	Multifix 1 - galvanized steel	100	310	331	1,50	100	448753*
	Multifix 1 - stainless steel	100	310	331	1,81	100	447813*
	Multifix 2 - galvanized steel	100	360	331	1,66	100	448754*
	Multifix 2 - stainless steel	100	360	331	1,97	100	447814*
	Polyester bonding compound				0,90	10	02163

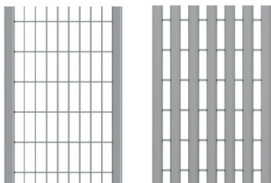
\*Installation recommendations for Multifix 1, Multifix 2 and Multifix 3 to be found on page 24 and 25



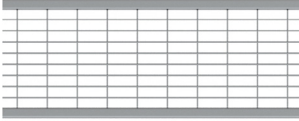
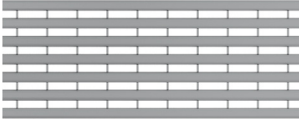
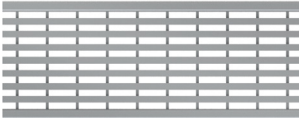
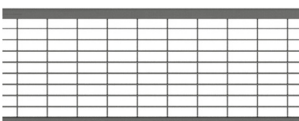
Gratings

Load class B 125

- Gratings certified to EN 1433
- With integrated Drainlock locking



Gratings

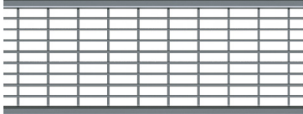
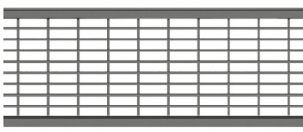
		Dimensions						Item no.
		Length	Width	Inlet opening measurement	Intake area	Weight	PU	
							pcs./pallet	
Product		mm	mm	mm		kg		
	Mesh grate Q+ - Galvanized steel	1000	123	30 x 10	845	3,13	150	132560
		500	123	30 x 10	845	1,60	100	132561
	Mesh grate Q+ - Stainless steel	100	123	30 x 10	845	3,20	100	132559
		500	123	30 x 10	845	1,60	100	132542
	Linear U-profile grate - Galvanized steel	1000	123	8	430	4,80	100	132555
		500	123	8	430	1,90	100	132550
	Linear U-profile grate - Stainless steel	100	123	8	430	4,80	100	132556
		500	123	8	430	1,93	100	132551
	Linear triangle grate - Stainless steel	1000	123	6	465	3,85	100	132557
		500	123	6	465	1,74	100	132552
	Q+ Mesh grate grey - Painted	1000	123	30 x 10	845	3,20	100	449282
		500	123	30 x 10	845	1,60	100	449283

Load class C 250

- Gratings certified to EN 1433
- With integrated Drainlock locking



Gratings

		Dimensions						Item no.
		Length	Width	Inlet opening measurement	Intake area	Weight	PU	
							pcs./pallet	
Product		mm	mm	mm		kg		
	Mesh grate Q+ - Galvanized steel	1000	123	30 x 10	800	4,14	100	132880
		500	123	30 x 10	800	2,06	100	132881
	Mesh grate Q+ - Stainless steel	100	123	30 x 10	800	4,18	100	132882
		500	123	30 x 10	800	2,00	100	132883
	Q+ Mesh grate grey - Painted	1000	123	30 x 10	800	4,20	100	449284
		500	123	30 x 10	800	2,10	100	449285

Grating accessories

		Weight		PU	Item no.
		kg	pcs./pallet		
Description		Suitable for			
	<b>Cover grating hook</b> ■ For lifting cover gratings ■ Galvanised steel	■ Cover gratings		0,3	200
					01290
	<b>Cover grating hook, small</b> ■ For lifting cover gratings ■ Steel, black lacquered	■ Grid Q+ ■ Composite ■ U-profiles ■ Triangle profiles		0,25	200
					01367



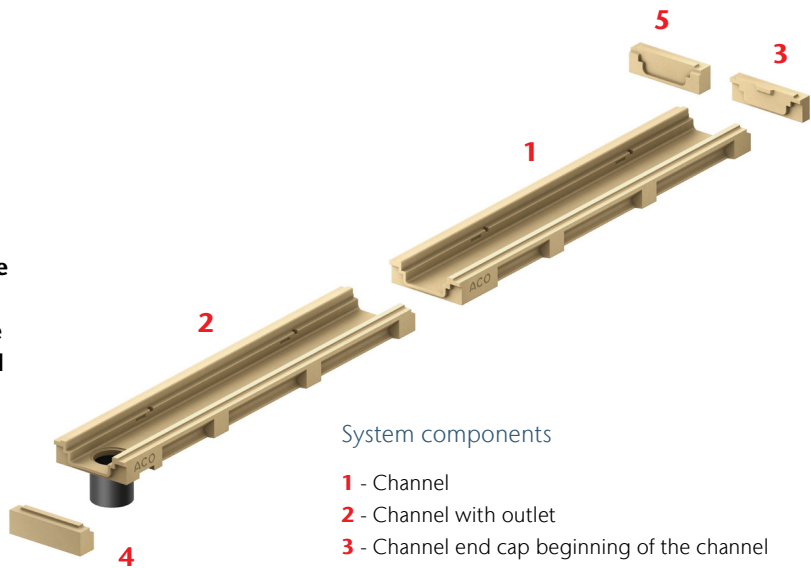


ACO DRAIN® Deckline P OS

Shallow channel for multi-level parking buildings and underground garages

NEW!

**Parking deck drainage - ACO DRAIN® Deckline P OS** is the latest addition to the ACO parking deck range for garages and parking decks with surface coatings. The polymer concrete channel with all-round coating flange and low construction height satisfies the special requirements for garages and parking decks.



System components

- 1 - Channel
- 2 - Channel with outlet
- 3 - Channel end cap beginning of the channel
- 4 - Channel end cap end of a channel
- 5 - Channel end cap for cut-off channels

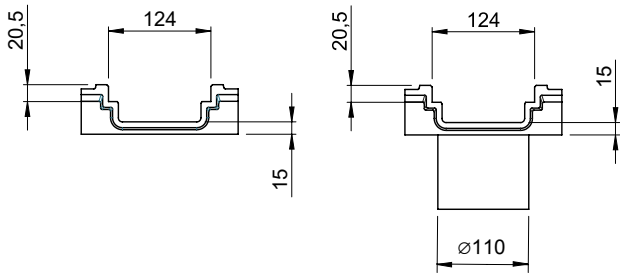
Typical applications

- Underground car garages
- Parking houses and multi-level car parks

Product benefits:

- Polymer concrete system, easy to seal
- Corrosion resistant system with no steel parts, flange from polymer concrete
- Easy assembly
- Recommended solution for concrete surfaces
- Low height with minimum impact to floor structure
- ACO SF safety groove at both ends to make channels 100% watertight
- Connected with Drainlock system grating for easy assembly and disassembly
- Pre-treated adhesive surface for 100% watertight bonding and bond strength



Deckline P100 OS






Product information

- Channel material and edges: polymer concrete
- Channel type: no slope
- Maximum load class: C250
- Certified EN1433
- Channel height 60 mm
- Continuous linear polymer concrete flange for secure connection of waterproof insulation layer to the channel.

Deckline P100 OS







Product	Dimensions						PU	Item no.
	Length	Width NW/100	Width	Height	Weight			
	mm	mm	mm	mm	kg	pcs./pallet		
	Deckline P100 OS	1000	100	172	60	11,08	40	447756
	Deckline P100 OS with outlet	1000	100	172	60	11,60	32	4474757

Accessories

 Deckline P100 OS end caps beginning of the channel	40	100	172	60	0,76	24		447758
 Deckline P100 OS end caps end of the channel	40	100	172	60	0,95	24		447759
 Deckline P100 OS end caps for trimming	40	100	172	60	0,90	24		447760



Extended accessories

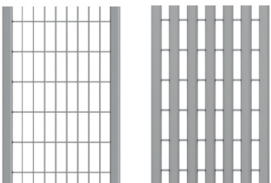
Product	Dimensions					PU	Item no.
	Length	Width	Height	Weight			
	mm	mm	mm	kg	pcs./pallet		
	EG raising piece with double clam. flange DN 100	360	360	250	4,00	40	01043
	FAT for Deckline P	73	80	87	0,30	100	445989
	ACO DRAIN® Silt basket for vertical outlet D110	125	88	76	0,29	55	132378
	Sieve for Deckline P		90	4	0,11	25	445988
	Multifix 1 - galvanized steel	100	310	331	1,50	100	448753*
	Multifix 1 - stainless steel	100	310	331	1,81	100	447813*
	Multifix 2 - galvanized steel	100	360	331	1,66	100	448754*
	Multifix 2 - stainless steel	100	360	331	1,97	100	447814*
	Polyester bonding compound				0,90	10	02163

\*Installation recommendations for Multifix 1, Multifix 2 and Multifix 3 to be found on page 24 and 25

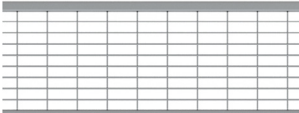


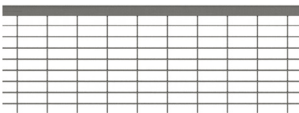
Gratings

Load class B 125

- Gratings certified to EN 1433
- With integrated Drainlock locking



Gratings

		Dimensions					PU	Item no.
		Length	Width	Inlet opening measurement	Intake area	Weight		
Product								
	Mesh grate Q+ - Galvanized steel	1000	123	30 x 10	845	3,13	150	132560
		500	123	30 x 10	845	1,60	100	132561
	Mesh grate Q+ - Stainless steel	100	123	30 x 10	845	3,20	100	132559
		500	123	30 x 10	845	1,60	100	132542
	Linear U-profile grate - Galvanized steel	1000	123	8	430	4,80	100	132555
		500	123	8	430	1,90	100	132550
	Linear U-profile grate - Stainless steel	100	123	8	430	4,80	100	132556
		500	123	8	430	1,93	100	132551
	Linear triangle grate - Stainless steel	1000	123	6	465	3,85	100	132557
		500	123	6	465	1,74	100	132552
	Q+ Mesh grate grey - Painted	1000	123	30 x 10	845	3,20	100	449282
		500	123	30 x 10	845	1,60	100	449283



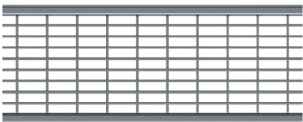
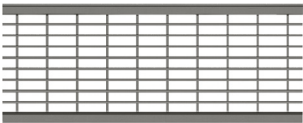
Deckline P150 OS

Load class C 250



- Gratings certified to EN 1433
- With integrated Drainlock locking

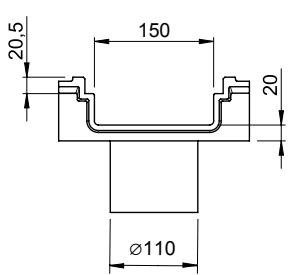
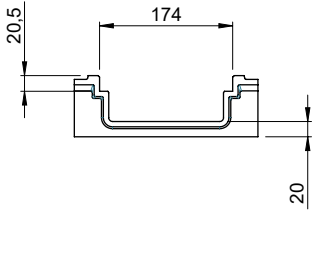


Gratings

		Dimensions						Item no.
		Length	Width	Inlet opening measurement	Intake area	Weight	PU	
		mm	mm	mm		kg	pcs./pallet	
	Mesh grate Q+ - Galvanized steel	1000	123	30 x 10	800	4,14	100	132880
		500	123	30 x 10	800	2,06	100	132881
	Mesh grate Q+ - Stainless steel	100	123	30 x 10	800	4,18	100	132882
		500	123	30 x 10	800	2,00	100	132883
	Q+ Mesh grate grey - Painted	1000	123	30 x 10	800	4,20	100	449284
		500	123	30 x 10	800	2,10	100	449285

Grating accessories



Description	Suitable for	Weight		PU	Item no.
		kg	pcs./pallet		
 <b>Cover grating hook</b> <ul style="list-style-type: none"><li>■ For lifting cover gratings</li><li>■ Galvanised steel</li></ul>	■ Cover gratings	0,3	200		01290
 <b>Cover grating hook, small</b> <ul style="list-style-type: none"><li>■ For lifting cover gratings</li><li>■ Steel, black lacquered</li></ul>	■ Grid Q+ ■ Composite ■ U-profiles ■ Triangle profiles	0,25	200		01367






Product information

- Channel material and edges: polymer concrete
- Channel type: no slope
- Maximum load class: C250
- Certificated EN1433
- Channel height 60 mm
- Continuous linear polymer concrete flange for secure connection of waterproof insulation layer to the channel.

Deckline P150 OS







		Dimensions						Item no.
		Length	Width NW/100	Width	Height	Weight	PU	
		mm	mm	mm	mm	kg	pcs./pallet	
	Deckline P150 OS	1000	150	225	80	18,20	24	447874
	Deckline P150 OS with outlet	1000	150	225	80	17,90	21	447875

Accessories



	Deckline P150 end caps beginning of the channel	40	150	225	80	1,30	96	447876
	Deckline P150 end caps end of the channel	40	150	225	80	1,60	96	447877
	Deckline P150 end caps for trimming	40	150	225	80	1,60	96	447878



Extended accessories

Product		Dimensions				PU	Item no.
		Length	Width	Height	Weight		
		mm	mm	mm	kg		
	EG raising piece with double clam. flange DN 100	360	360	250	4,00	40	01043
	FAT for Deckline P	73	80	87	0,30	100	445989
	ACO DRAIN® Silt basket for vertical outlet D110	125	88	76	0,29	55	132378
	Sieve for Deckline P		90	4	0,11	25	445988
	Multifix 3 - galvanized steel	100	410	331	2,13	100	448755*
	Multifix 3 - stainless steel	100	410	331	1,83	100	447815*
	Polyester bonding compound				0,90	10	02163

Grating accessories

Description		Suitable for	Weight	PU	Item no.
			kg	pcs./pallet	
	<b>Cover grating hook</b>	■ Cover gratings	0,3	200	01290
	■ For lifting cover gratings ■ Galvanised steel				
	<b>Cover grating hook, small</b>	■ Grid Q+ ■ Composite ■ U-profiles ■ Triangle profiles	0,25	200	01367
	■ For lifting cover gratings ■ Steel, black lacquered				

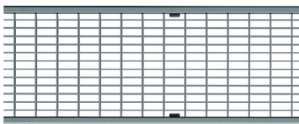
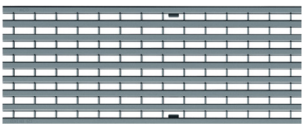

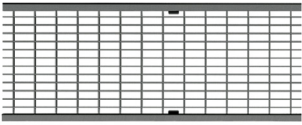
\*Installation recommendations for Multifix 1, Multifix 2 and Multifix 3 to be found on page 24 and 25

Gratings

Load class B 125

- Gratings certified to EN 1433
- With integrated Drainlock locking

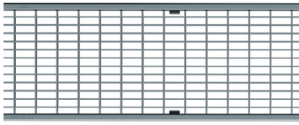
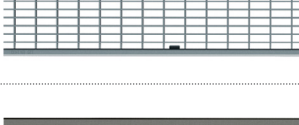
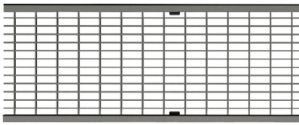
Gratings

Product		Dimensions				Weight	PU	Item no.
		Length	Width	Inlet opening measurement	Intake area			
		mm	mm	mm				
	Mesh grate Q+ - Galvanized steel	1000	173	30 x 10	1182	5,40	100	133601
		500	173	30 x 10	1182	2,70	50	133602
	Mesh grate Q+ - Stainless steel	100	173	30 x 10	1182	5,30	100	133603
		500	173	30 x 10	1182	2,70	50	133604
	Linear U-profile grate - Galvanized steel	1000	173	9	687	5,10	100	133625
		500	173	9	687	2,50	100	133626
	Linear U-profile grate - Stainless steel	100	173	9	687	5,10	100	133627
		500	173	9	687	2,60	100	133628
	Linear triangle grate - Stainless steel	1000	173	6	668	6,40	48	133633
		500	173	6	668	3,10	24	133634
	Q+ Mesh grate grey - Painted	1000	173	30 x 10	668	5,50	50	449286
		500	173	30 x 10	668	2,80	50	449287

Load class C 250

- Gratings certified to EN 1433
- With integrated Drainlock locking

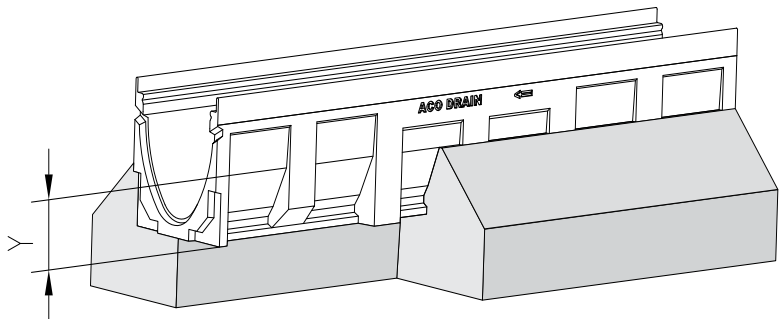
Gratings

	Mesh grate Q+ - Galvanized steel	1000	173	30 x 10	1182	5,70	100	133605
		500	173	30 x 10	1182	2,80	50	133606
	Mesh grate Q+ - Stainless steel	100	173	30 x 10	1182	5,70	100	133607
		500	173	30 x 10	1182	2,90	50	133608
	Q+ Mesh grate grey - Painted	1000	173	30 x 10	668	5,70	50	448804
		500	173	30 x 10	668	2,80	50	448805

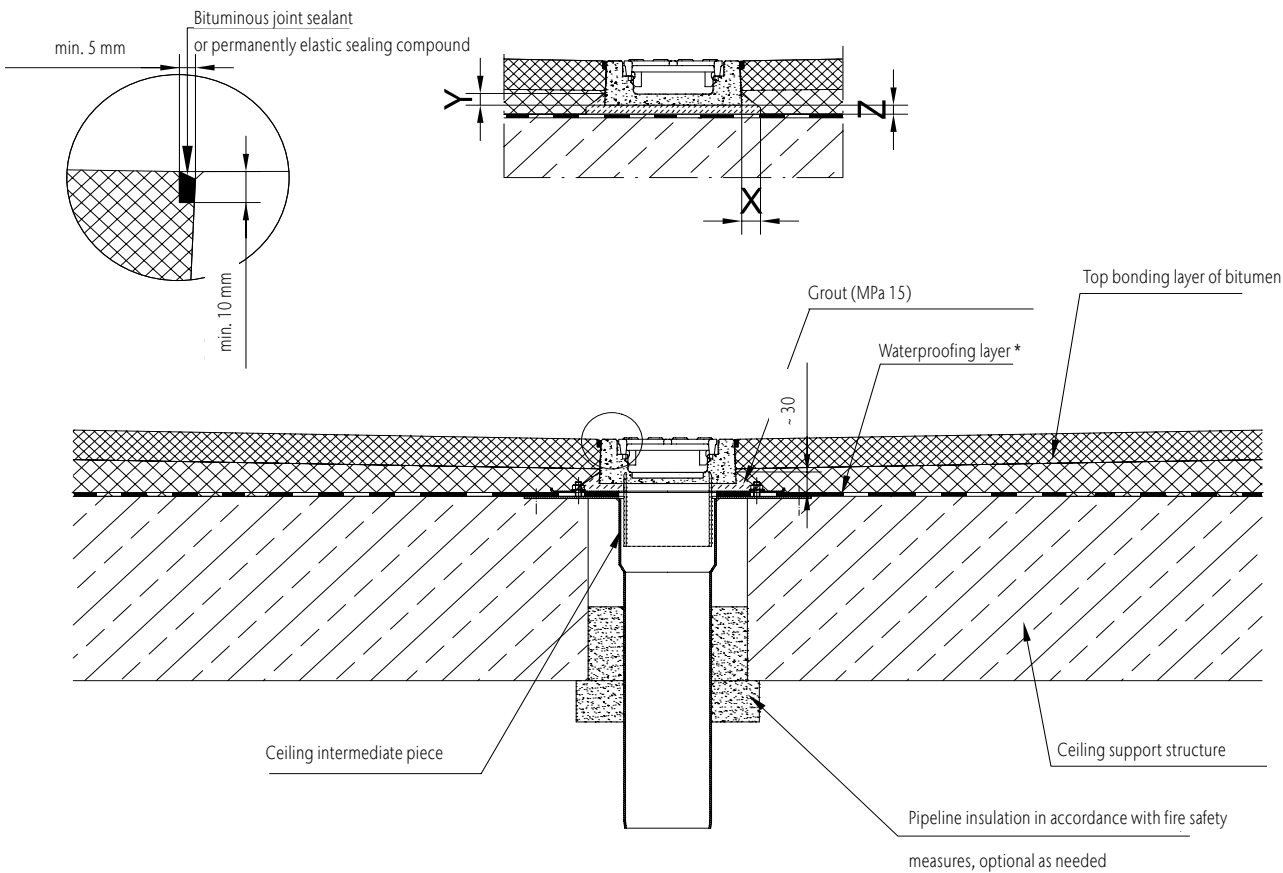


Overview of embedding details

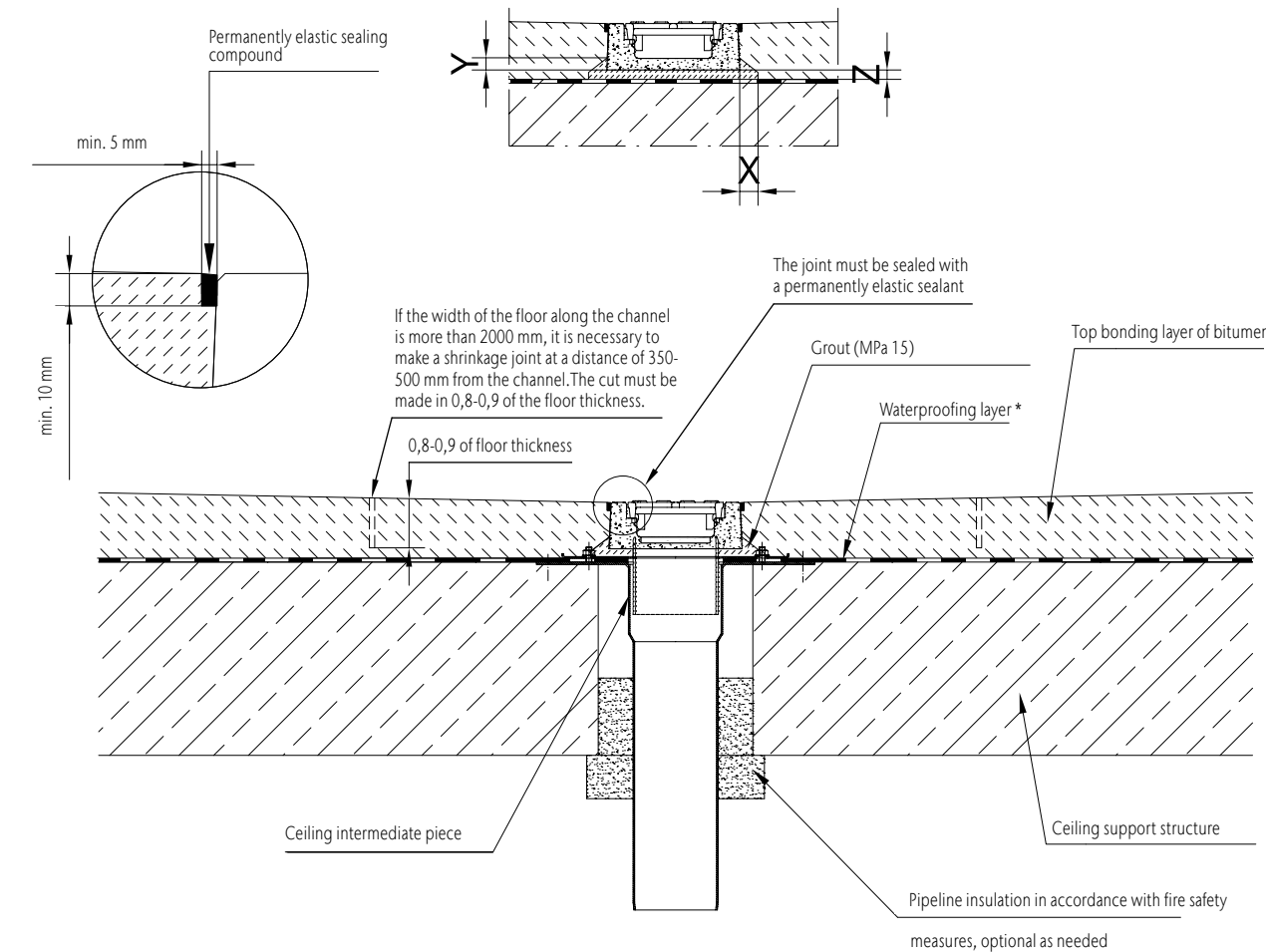
The construction dimension Y is specified in the relevant ACO embedding details and determines the minimum amount of concrete for lateral stabilization of the channel body. This value may vary depending on the height of the channel and the thickness of the subsequent top layer.



Embedding into bitumen - A15 to C250



Embedding into concrete - A15 to C250



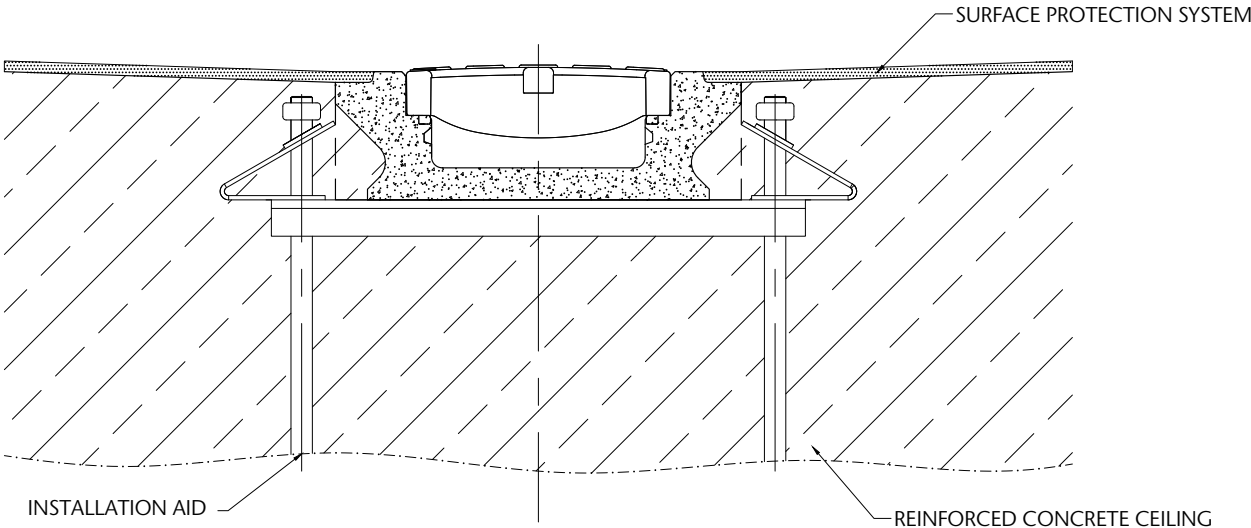
Load class	(according to EN 1433)	A 15	B 125	C 250	D 400	E600
Basic dimension	X (cm)	≥ 3	≥ 3	≥ 3		
	Y (cm)	≥ 1,5	≥ 1,5	≥ 1,5		
	Z (cm)	≥ 1,5	≥ 1,5	≥ 1,5		

Load class	(according to EN 1433)	A 15	B 125	C 250	D 400	E600
Basic dimensions	X (cm)	≥ 3	≥ 3	≥ 3		
	Y (cm)	≥ 1,5	≥ 1,5	≥ 1,5		
	Z (cm)	≥ 1,5	≥ 1,5	≥ 1,5		

\*In parking decks or roofs, installed channels should always be installed over the water-tight membrane. A direct connection of channel and membrane is not possible. For this matter, the „second“ draining surface can be drained down by vertical outlet with clamping flange.



# Installation recommendations for Multifix 1, Multifix 2 and Multifix 3

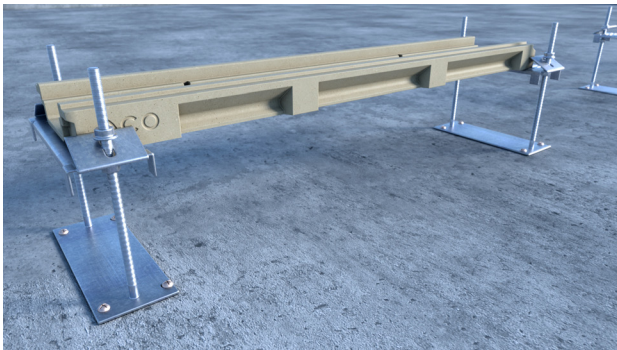


This installation recommendations shows an application using Deckline P OS channel, the same installation recommendations are valid also for Deckline P and Multislot channel.

## Adjusting and attaching the installation aid Multifix

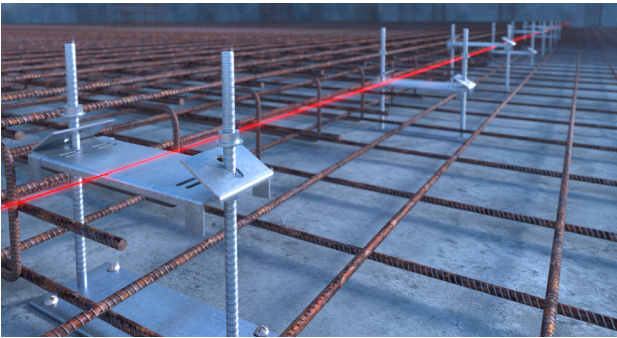
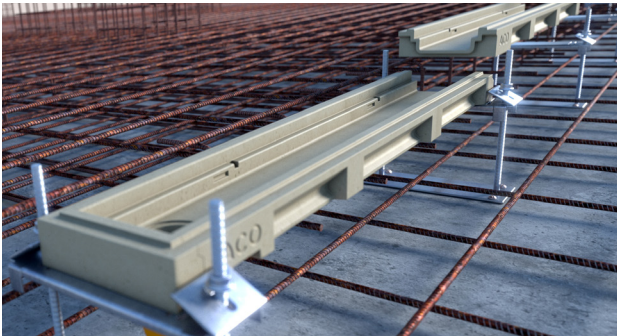
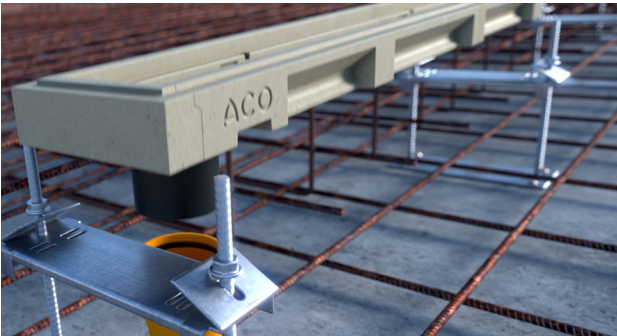
The installation aid is needed for the installation of the ACO channel before the main slab is poured. The base is placed under the contact point of the channels. Therefore, there is no need to create the joints and subsequently fill the joints when grouting. Height adjustment from 25 to 305 mm.

For one contact point of the channels, 1 piece of ACO installation aid is installed on the lower structure (panel form or leveling layer/concrete base). An additional ACO installation aid is required at the end of the channel line. Number of installation aids Multifix = standard meter + 1 piece



## Step 1: Adjusting the channel

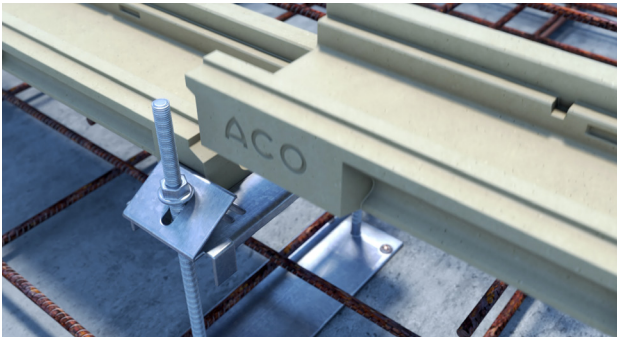
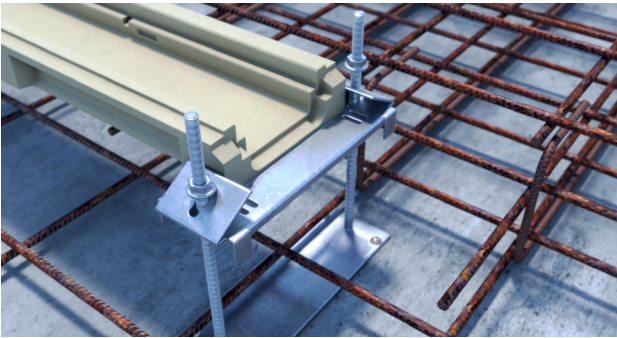
ACO channel is a drainage channel without a gradient. The laying of the channel starts with the point of connection (channel with an outlet pipe). The end cap for the starting point of the channel is attached to the channel line before the installation.



Adjusting the height of the installation aid to the desired level using a laser or cord. The height of the flange must be the same as the height of the top layer. (Lower edge of flange = top edge of background concrete) The height of the top edge of the channel (flange) must be set so that the flange does not protrude in any way, in order to ensure functional drainage. ACO channel is placed on the traverse of the ACO installation aid.

## Step 2: Laying of the channel

Laying of the channels from above. The point of contact must be kept clean to create a flowing transition. The channel contact points require special care to ensure that the transition is flowing and at the same level. The level of the surface layer must be flush with the surface flange of the channel.



The channel is tightened with nuts (M10) at the point of contact to secure it against displacement and protrusion. This requires special care to align the channel line and transitions. The channel line should not be loaded or moved until the concrete has cured.



Every ACO product supports  
the ACO system chain



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ACO. we care for water

