



RECYFIX MONOTEC

A monolithic drainage system designed to accept large volumes of rainwater - to load class D400kN

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RECYFIX MONOTEC

Monolithic drainage system - lightweight and robust

Lightweight for simple, fast and low-cost installation

- maximum stability with minimum weight
- significantly lighter than channels made of mineral material
- simple to transport, handle and install



1m 100mm channel = 7,8kg
1m 200mm channel = 16,2kg



Fast installation



Simple processing

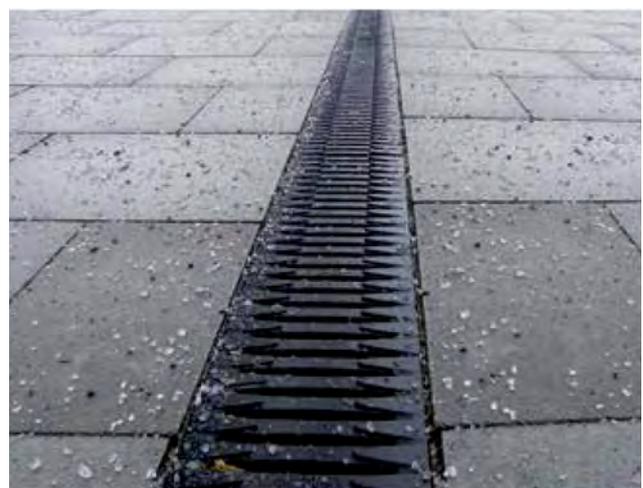


Easy transport

RECYFIX - corrosion free and extremely strong

- high-tech-material from renowned Plastic Research Institute
- permanently resistant to frost, de-icing salt and UV light
- extremely durable even with frequent traffic

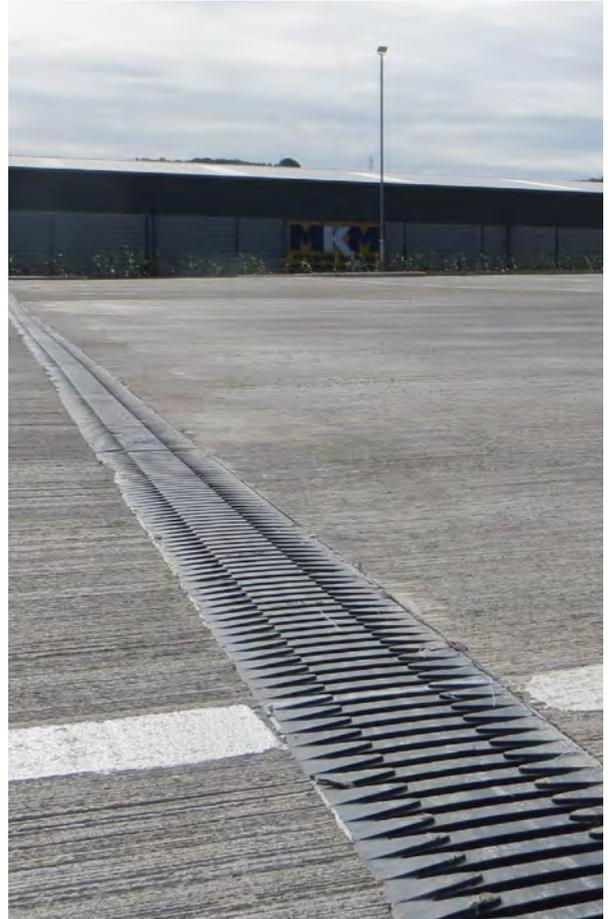
100% corrosion free



100% corrosion free, especially in cases of frost and de-icing salt



Asphalt installation



Concrete installation



Block paved installation



Frequently trafficked area

RECYFIX MONOTEC

Monolithic drainage system for heavily frequented traffic areas.

1 Requirements

Monolithic drainage channels in traffic areas must:

- be permanently corrosion-resistant
- be secure against vandalism
- be maintenance-free and drain reliably
- satisfy aesthetic demands

2 Application areas

- Parking areas
- Market places, public spaces
- School playgrounds
- Residential areas
- Gas stations
- Trafficked areas in trade and industrial sites

3 Solutions

Therefore, RECYFIX MONOTEC channels are especially suitable for draining such surfaces:

- Lightweight ensuring simple processing for cost-effective installation
- Channel made of specially resistant recycled modified polypropylene
- Leak-proof and chemical-resistant
- Extremely robust
- Very quick to install

A selection of Hydraulic Performance tables for the most popular sizes of FASERFIX and RECYFIX channels including the RECYFIX MONOTEC and RECYFIX HICAP ranges are available on request in an 8 page hard copy or PDF publication.

Hauraton channel drainage configurations are designed and sized using in-house **Hydraulic Design Software**. The accuracy of the software has been verified by physical testing of Hauraton systems within a hydraulic discharge test flume, replicating and evaluating hundreds of flow scenarios.

Hydraulic design software is also available free of charge to industry professionals. Intuitive and user friendly, **Hauraton Design Software** allows engineers to create drainage schemes for the company's range of civil engineering systems on tablets, desktop computers or through the internet (web-based application).

For smaller projects where a quick indication of the appropriate channel size and system is required for a given catchment area, Hauraton can provide their **Hydraulic Design App**.

For further details contact the Hauraton Technical Support Team.



RECYFIX MONOTECH - Class D400kN

Features & Benefits

100% corrosion free



high hydraulic capacity

- optimised inlet surface with composite corrosion free grating design
- high capacity with slim channel construction

= Safety



low weight ensures easy handling on site

- significantly lighter than channels made of mineral material
- simple to transport and install - one man lift

= Time and cost savings



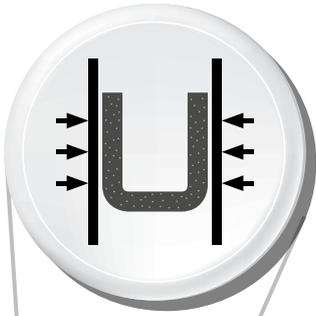
Fast installation



Easy transport



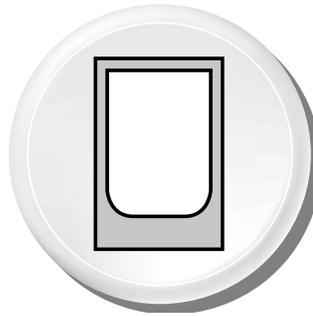
Simple processing



strong and durable

- impact resistant to D400kN loadings
- strong elastic material

= **Longevity**



one piece channel

- highly stable monolithic channel
- anti theft design

= **Longevity**



high resistance

- high resistance to frost, de-icing salt and UV light
- withstands high temperature differences
- chemical-resistant

= **Durability**



low maintenance

- cleaning the system is simplified via inspection box units
- durable high-quality appearance

= **Time and cost savings**

RECYFIX MONOTEC

Optimum hydraulic capacity through slim design.

The RECYFIX MONOTEC channel is made of highly resistant and robust polypropylene. Therefore, a particularly slender design is possible which has a positive effect with regard to drainage capacity. The smallest model, with a nominal width of 100 mm and a height of 230 mm, has a drainage cross-section of 190.5 cm². Monolithic channels, made from other materials, must have much thicker sidewalls which significantly reduces the drainage cross-section.

The RECYFIX MONOTEC channel range consists of 3 heights with a nominal width of 100 mm and one model with a nominal width of 200 mm. Long-term practical tests and computer-aided simulations lead to the same result: the RECYFIX MONOTEC accumulates heavy rainfall, provides a sufficient backwater reserve and drains large surfaces safely and reliably.



RECYFIX MONOTEC

Nominal size	Height	Drainage cross-section		Volume/Channel
100 mm	230 mm	190.5 cm ²		19.1 l
100 mm	280 mm	245.5 cm ²		24.6 l
100 mm	380 mm	355.5 cm ²		35.6 l
200 mm	450 mm	746.1 cm ²		74.6 l

Maximum hydraulic capacity

The fibre-reinforced polypropylene material enables a slim channel design. As a result, a maximum hydraulic capacity is achieved.



NW 100, Type 230



NW 100, Type 280



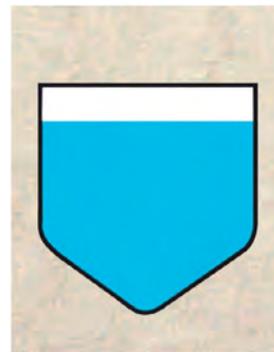
NW 100, Type 380



NW 200, Type 450



NW 200, Type 450



Lower drainage capacity, up to 45%, with monolithic channels made from other materials

FIBRETEC slotted grating: Proven to make progress

In 2010, HAURATON invented the FIBRETEC HEELSAFE slotted grating. This grating is specially designed for maximum hydraulic performance. Optimized inlet radii ensure that the largest amount of water is led into the channel within the shortest time. More than one million channels sold proves its great popularity. The FIBRETEC design has now been transferred to the RECYFIX MONOTEC system providing the perfect combination of water intake, retention and drainage.



Testing at HAURATON Hydraulic Center in Budapest

RECYFIX MONOTEC Applications

Monolithic drainage system for heavily frequented traffic areas.

RECYFIX MONOTEC channels meet the requirements of DIN EN 1433 and are suitable for the following load classes:



**Category C 250,
Load Class 250 kN**



**Category D 400,
Load Class 400 kN**

If in doubt, always select the higher class.

1

RECYFIX MONOTEC channels made of modified polypropylene, according to DIN EN 1433, CE-conform.

2

Trash box made of galvanized steel with pipe connection possibility DN 200. Removable grating made of modified polypropylene for access to channel system.

3

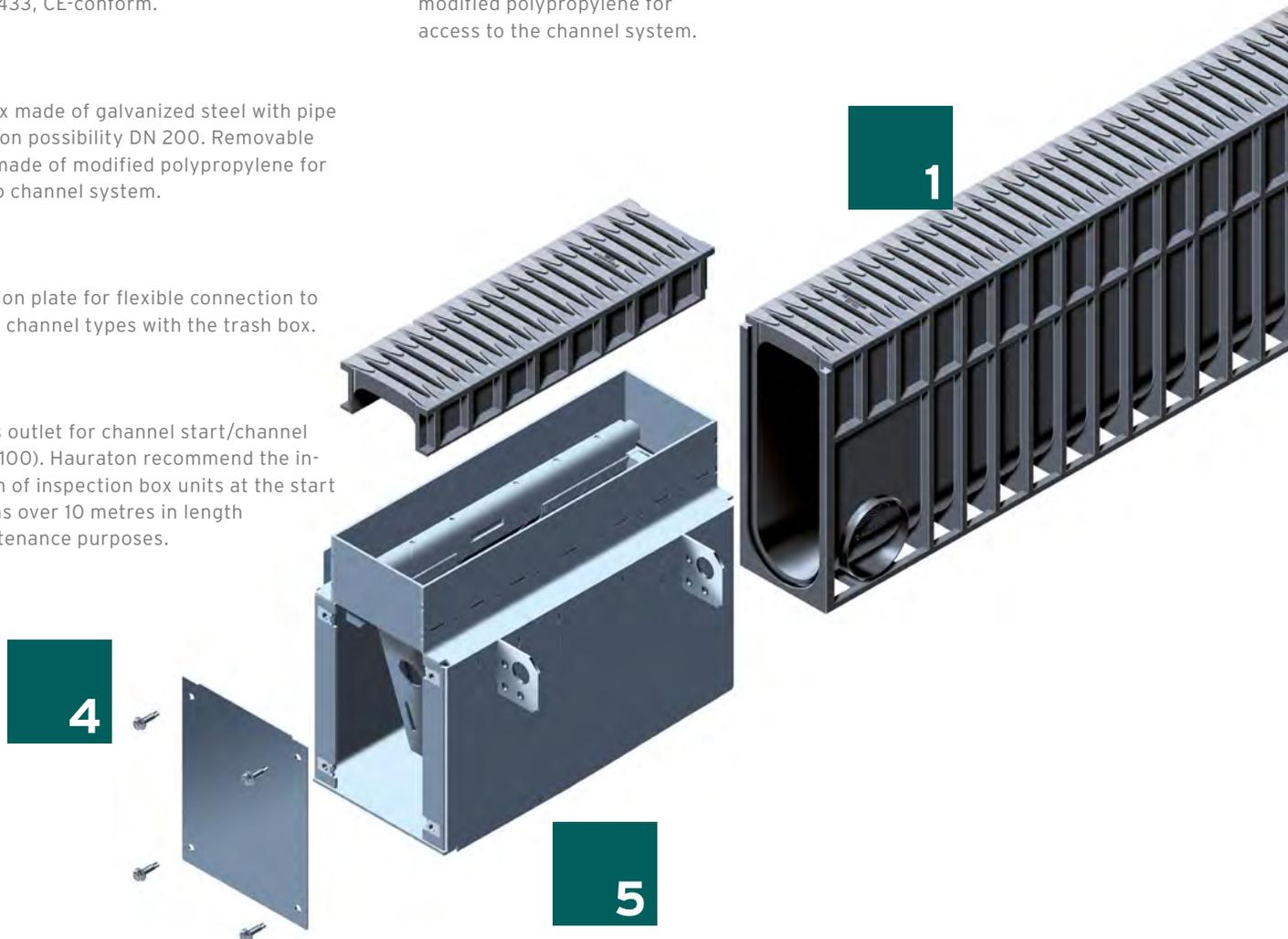
Connection plate for flexible connection to different channel types with the trash box.

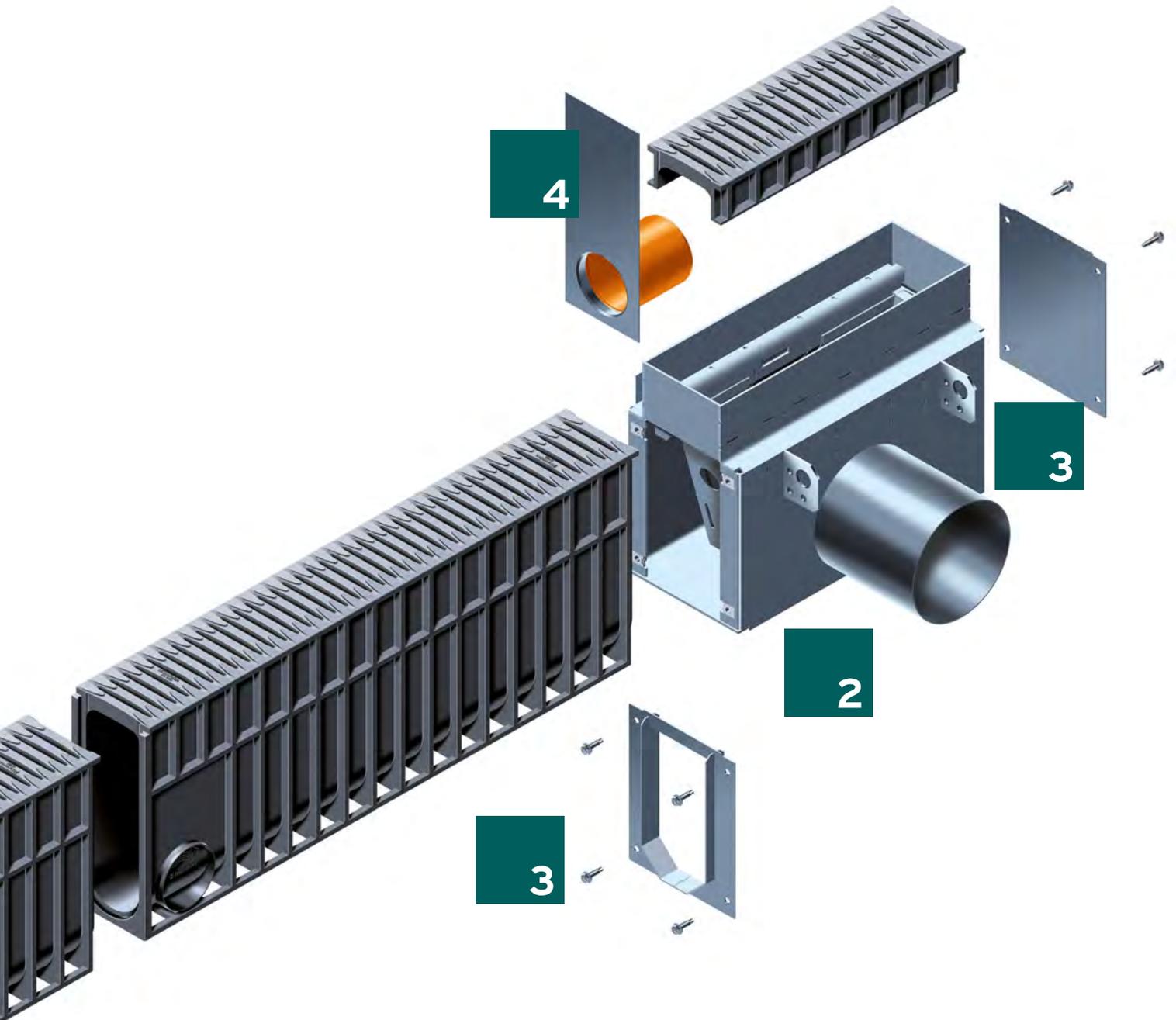
4

End caps outlet for channel start/channel end (DN 100). Hauraton recommend the installation of inspection box units at the start of all runs over 10 metres in length for maintenance purposes.

5

Inspection box made of galvanized steel with removable grating made of modified polypropylene for access to the channel system.



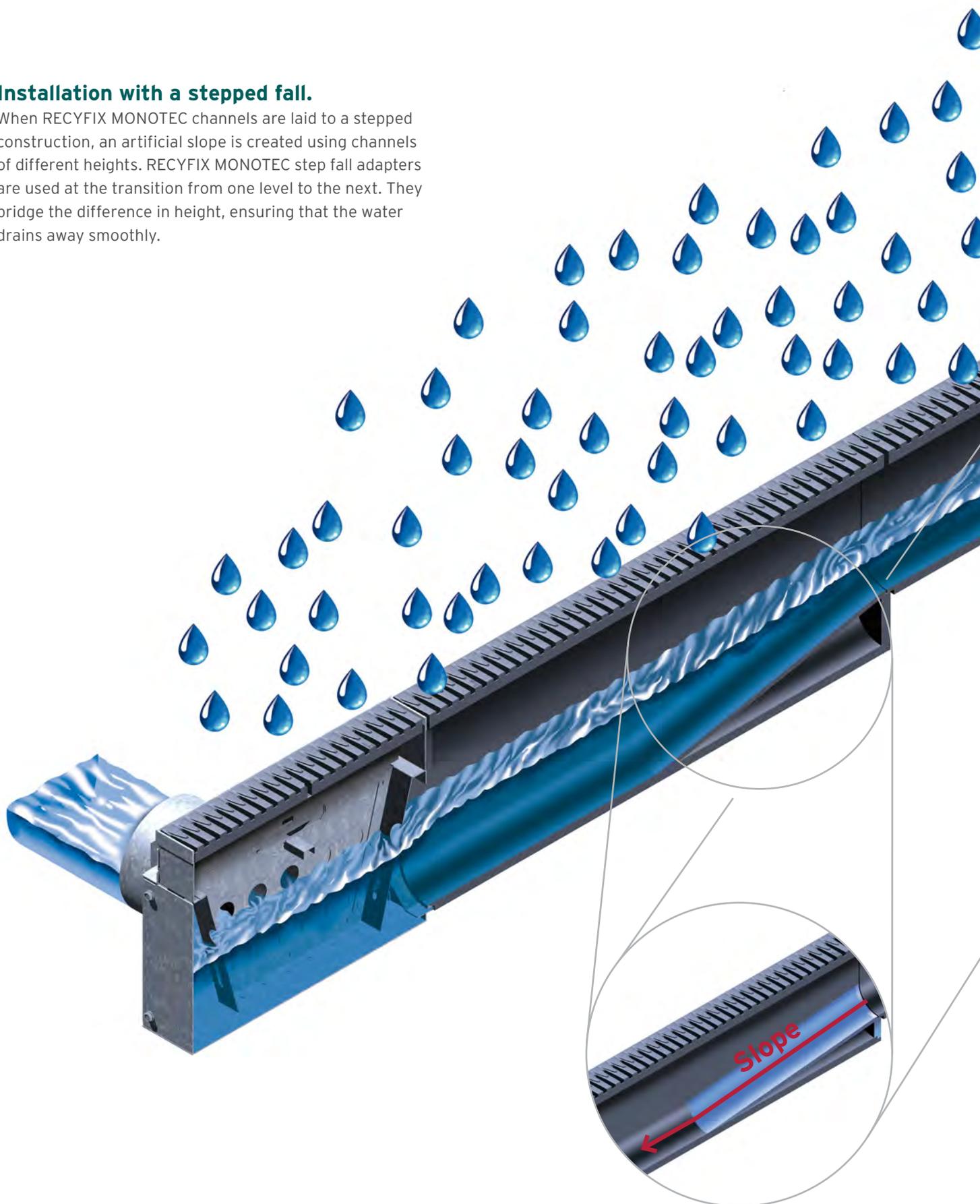


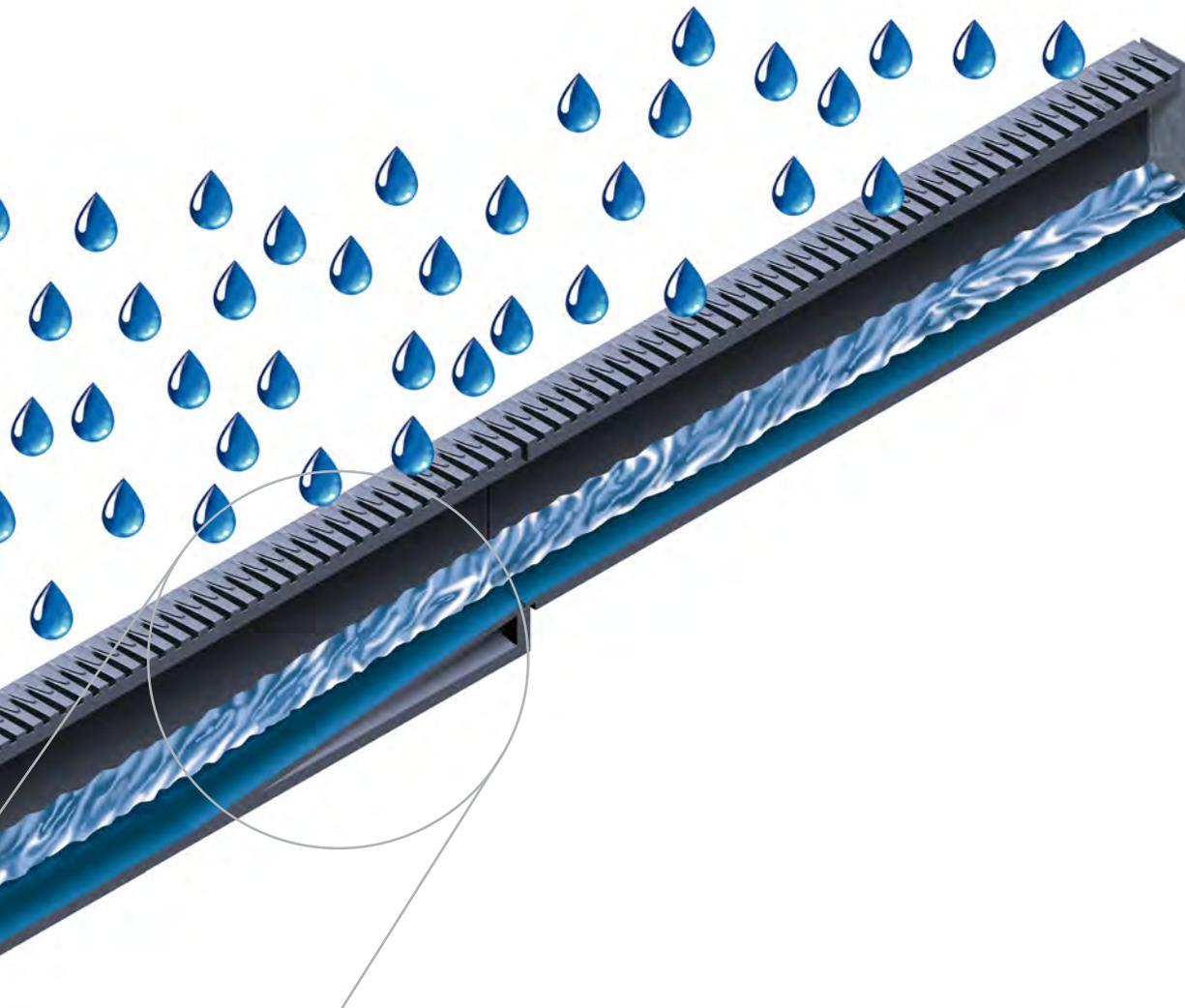
RECYFIX MONOTEC Step Fall

Reliable hydraulic performance for channel runs with a stepped fall.

Installation with a stepped fall.

When RECYFIX MONOTEC channels are laid to a stepped construction, an artificial slope is created using channels of different heights. RECYFIX MONOTEC step fall adapters are used at the transition from one level to the next. They bridge the difference in height, ensuring that the water drains away smoothly.





RECYFIX MONOTEC Step Fall Adapter, black, for channel runs with step fall



Step Fall Adapter for transition from type 230 to 280

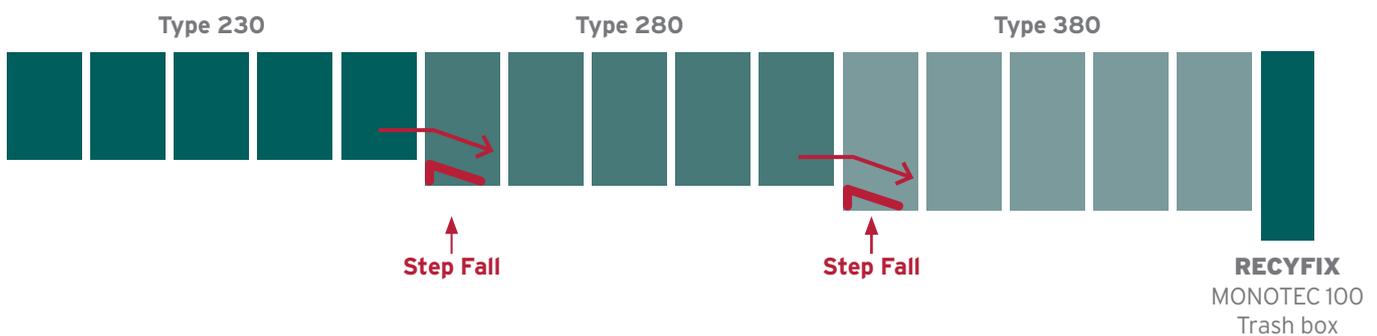


Step Fall Adapter for transition from type 280 to 380

NB: A step fall design providing an enhanced hydraulic water flow can also be made between a RECYFIX MONOTEC 100, type 380 channel run, connected to a 200 Inspection Box and then to a RECYFIX MONOTEC 200, type 450 channel run.

Refer page 20 for details.

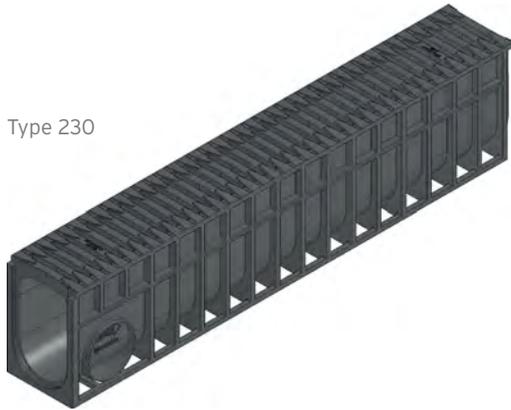
RECYFIX MONOTEC Channels 100:



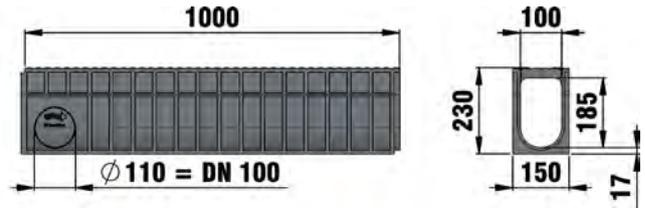
RECYFIX MONOTEC 100

Monolithic channel

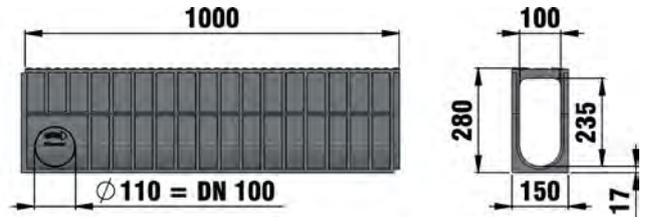
RECYFIX MONOTEC 100, class D 400



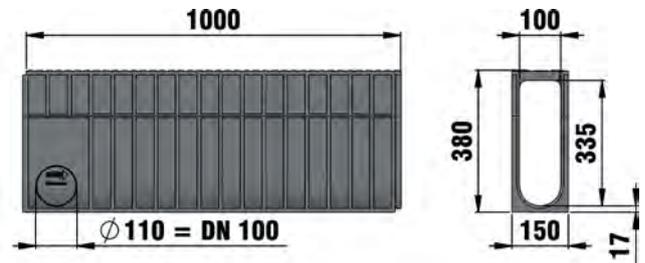
Type 230



Type 280



Type 380



	Length mm	Width mm	Height mm	Invert mm	Intake cross-sect. cm ² /m	Drainage cross-sect. cm ²	Weight kg	Item No.
Type 230 SW 9mm HEELSAFE	1000	150	230	213	372	190,5	7,85	36000
Type 280 SW 9mm HEELSAFE	1000	150	280	263	372	245,5	8,63	36005
Type 380 SW 9mm HEELSAFE	1000	150	380	363	372	355,5	10,25	36015

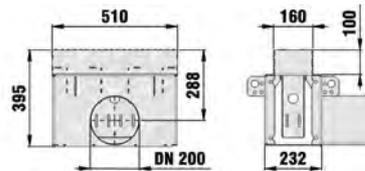
RECYFIX MONOTEC 100

Accessories

Trash box



Trash box with galvanised bucket



Technical drawing, trash box with galvanised bucket



Connection plate with screw set, galvanised, channel type 230



Closing cap with screw set, galvanised

	Length mm	Width mm	Height mm	Weight kg	Item No.
Trash box with galvanised bucket	510	160	395	-	36045
Locking handle with screw for protection against vandalism	-	-	-	-	36098
Connection plate with screw set, galvanised, channel type 230	-	216	283	-	36032
Connection plate with screw set, galvanised, channel type 280	-	216	283	-	36037
Connection plate with screw set, galvanised, channel type 380	-	216	283	-	36047
Closing cap with screw set, galvanised, for trash box/inspection box	-	216	283	-	36023

All trash and inspection boxes are factory-made with the end face open to enable a modular use for all application situations:

- Option 1: one-sided channel connection: You will need 1 connection plate with the same channel height (= same type) and a closing cap.
- Option 2: two-sided channel connection: You will need 2 connection plates with the same channel height (= same type).



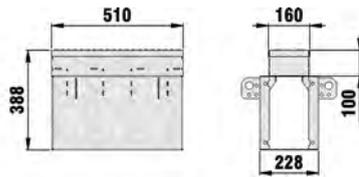
RECYFIX MONOTEC 100

Accessories

Inspection box



Inspection box



Technical drawing, inspection box



Connection plate with screw set, galvanised, channel type 280



Closing cap with screw set, galvanised

	Length mm	Width mm	Height mm	Weight kg	Item No.
Inspection box	520	160	388	-	36035
Looking handle with screw for protection against vandalism	-	-	-	-	36098
Connection plate with screw set, galvanised, channel type 230	-	216	283	-	36032
Connection plate with screw set, galvanised, channel type 280	-	216	283	-	36037
Connection plate with screw set, galvanised, channel type 380	-	216	283	-	36047
Closing cap with screw set, galvanised, for trash box/inspection box	-	216	283	-	36023
Flexible Coupling 180-200/160-180	-	150	-	-	AC6000
Flexible Coupling 260-285/180-205	-	159	-	-	AC9001

All trash and inspection boxes are factory-made with the end face open to enable a modular use for all application situations:

- Option 1: one-sided channel connection: You will need 1 connection plate with the same channel height (= same type) and a closing cap.
- Option 2: two-sided channel connection: You will need 2 connection plates with the same channel height (= same type).

NB: A step fall design providing an enhanced hydraulic water flow can also be made between a RECYFIX MONOTEC 100, type 380 channel run, connected to a 200 Inspection Box and then to a RECYFIX MONOTEC 200, type 450 channel run.

Refer page 20 for details.



Armley Retail Park Leeds



Parkgate Retail Rotherham

RECYFIX MONOTEC 100

End caps



End cap closed, galvanised, type 230



End cap with horizontal UPVC-outlet DN 100, galvanised, type 280

	Length mm	Width mm	Height mm	Weight kg	Item No.
End cap closed, galvanised, type 230	-	150	225	0,5	36080
End cap closed, galvanised, type 280	-	150	275	0,6	36082
End cap closed, galvanised, type 380	-	150	375	0,8	36086
End cap with horizontal UPVC-outlet DN 100, galvanised, type 230	-	150	225	-	36090
End cap with horizontal UPVC-outlet DN 100, galvanised, type 280	-	150	275	-	36092
End cap with horizontal UPVC-outlet DN 100, galvanised, type 380	-	150	375	-	36096

Further accessories



Step Fall Adapter for step slope, from type 230 to 280



Step Fall Adapter for step slope, from type 280 to 380

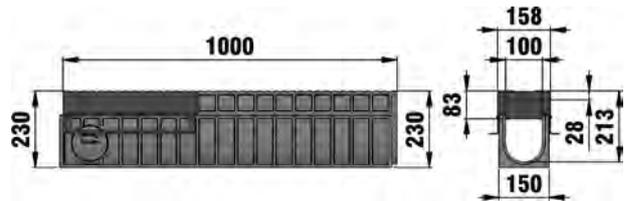
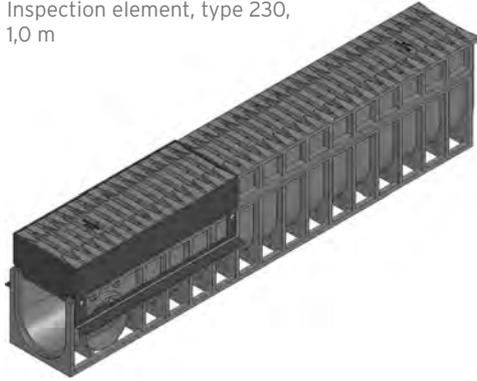
	Length mm	Width mm	Height mm	Weight kg	Item No.
Step Fall Adapter for step slope, from type 230 to 280	510	125	112,5	0,7	36070
Step Fall Adapter for step slope, from type 280 to 380	510	125	162,5	0,8	36071

RECYFIX MONOTEC 100

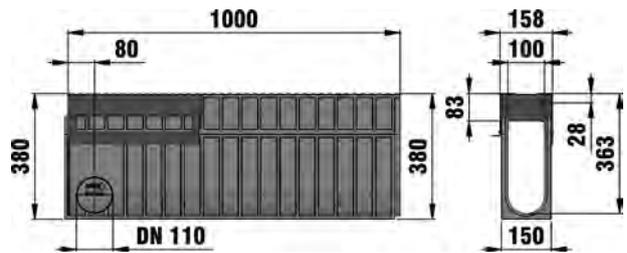
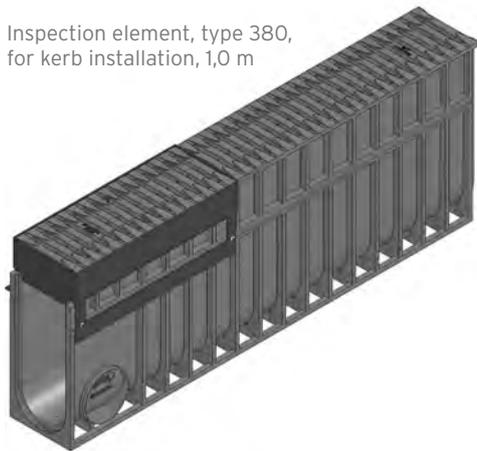
Accessories

Inspection elements

Inspection element, type 230, 1,0 m



Inspection element, type 380, for kerb installation, 1,0 m



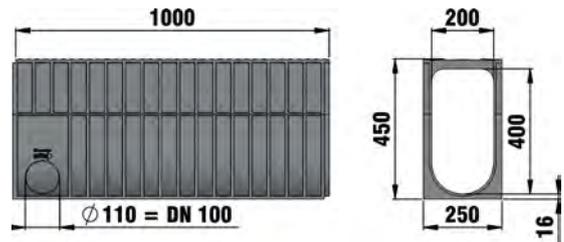
	Length mm	Width mm	Height mm	Internal channel cross-sect. cm ² /m	Intake cross-sect. cm ² /m	Weight kg	Item No.
Inspection element, type 230, 1,0 m	1000	158	230	130	351	10,89	36062
Inspection element, type 280, 1,0 m	1000	158	280	185	351	11,79	36063
Inspection element, type 380, 1,0 m	1000	158	380	295	351	13,72	36065
Inspection element, type 230, for kerb installation, 1,0 m	1000	158	230	130	351	11,12	36066
Inspection element, type 280, for kerb installation, 1,0 m	1000	158	280	185	351	12,11	36067
Inspection element, type 380, for kerb installation, 1,0 m	1000	158	380	295	351	14,10	36069

RECYFIX MONOTEC 200

Monolithic channel

RECYFIX MONOTEC 200, class D 400

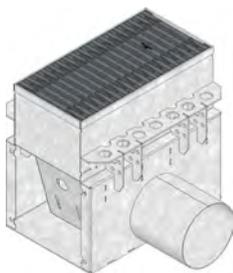
Type 450



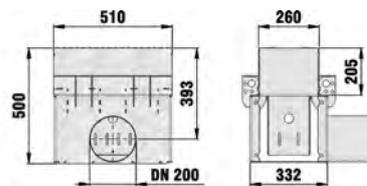
	Length mm	Width mm	Height mm	Invert mm	Intake cross-sect. cm ² /m	Drainage cross-sect. cm ²	Weight kg	Item No.
Type 450 SW 9mm HEELSAFE	1000	250	450	434	656	746,1	16,2	36215

Accessories

Trash box



Trash box with galvanised bucket



Technical drawing, trash box with galvanised bucket



Connection plate with screw set, galvanised, channel type 450



Closing cap with screw set, galvanised, for trash box/inspection box

	Length mm	Width mm	Height mm	Weight kg	Item No.
Trash box with galvanised bucket	510	260	500	-	36245
Looking handle with screw for protection against vandalism	-	-	-	-	36298
Connection plate with screw set, galvanised, channel type 450	-	316	283	-	36247
Closing cap with screw set, galvanised, for trash box/inspection box	-	316	283	-	36223

All trash and inspection boxes are factory-made with the end face open to enable a modular use for all application situations:

- Option 1: one-sided channel connection: You will need 1 connection plate with the same channel height (= same type) and a closing cap.
- Option 2: two-sided channel connection: You will need 2 connection plates with the same channel height (= same type).

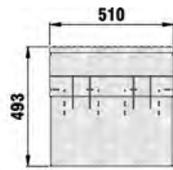
RECYFIX MONOTEC 200

Accessories

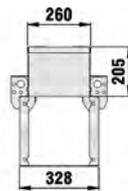
Inspection box



Inspection box



Technical drawing,
inspection box



Connection plate with
screw set, galvanised,
channel type 450



Closing cap with screw
set, galvanised, for trash
box/inspection box

	Length mm	Width mm	Height mm	Weight kg	Item No.
Inspection box	510	260	493	-	36235
Locking handle with screw for protection against vandalism	-	-	-	-	36298
Connection plate with screw set, galvanised, channel type 450	-	316	283	-	36247
Connection plate with screw set, galvanised, for channel 100, type 380 allowing connection to inspection box 200*	-	316	283	-	36147
Closing cap with screw set, galvanised, for trash box/inspection box	-	316	283	-	36223

All trash and inspection boxes are factory-made with the end face open to enable a modular use for all application situations:

- Option 1: one-sided channel connection: You will need 1 connection plate with the same channel height (= same type) and a closing cap.
- Option 2: two-sided channel connection: You will need 2 connection plates with the same channel height (= same type).

* Item No: 36147 permits a step fall design providing an enhanced hydraulic water flow between a RECYFIX MONOTEC 100, type 380 (Page 14) channel run, connected to the 200 Inspection Box and then to a RECYFIX MONOTEC 200, type 450 (Page 18) channel run using connection plate, Item No 36247.

End caps



End cap closed,
galvanised, type 450



End cap with horizontal
UPVC-outlet DN 100,
galvanised, type 450

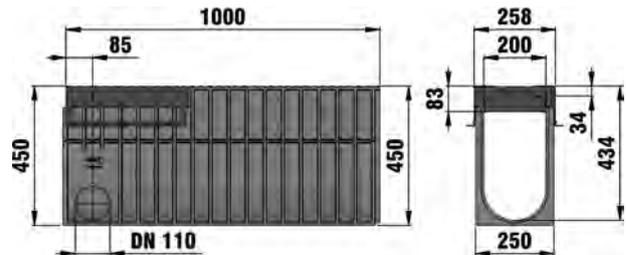
	Length mm	Width mm	Height mm	Weight kg	Item No.
End cap closed, galvanised, type 450	-	250	445	1,7	36286
End cap with horizontal UPVC-outlet DN 100, galvanised, type 450	-	250	445	-	36296

RECYFIX MONOTEC 200

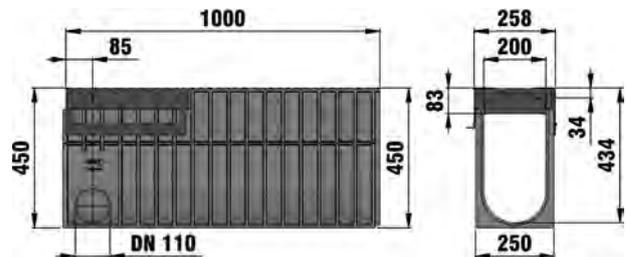
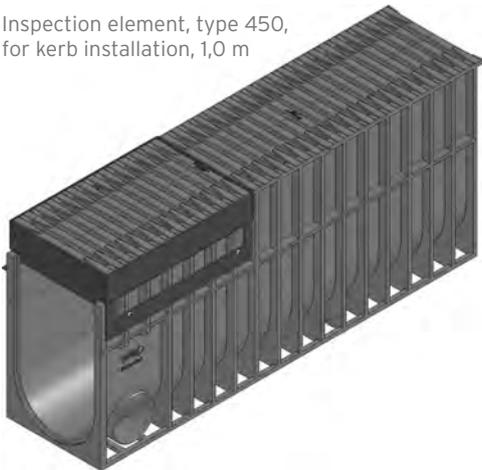
Accessories

Inspection elements

Inspection element, type 450, 1,0 m



Inspection element, type 450, for kerb installation, 1,0 m



	Length mm	Width mm	Height mm	Internal channel cross-sect. cm ² /m	Intake cross-sect. cm ² /m	Weight kg	Item No.
Inspection element, type 450, 1,0 m	1000	258	450	648	307	19,69	36262
Inspection element, type 450, for kerb installation, 1,0 m	1000	258	450	648	307	19,22	36266

Installation examples **RECYFIX MONOTEC**

Installation example pavement, class C 250

**Installation example
Pavement class C 250**

3 - 5 mm durable overhang

Pavement / Flagstone
Pavement bedding
Base course
Frost resistant sub-base

* h ≥ Channel height - 10 cm

Category according to EN 1433 / DIN 19580	A 15	B 125	C 250	D 400**	E 600	F 900	Applying to following systems: RECYFIX MONOTEC 100, 200
Foundation: with b / thickness d / height h (in cm)			10 / 15 / *				
The named concrete quality is a minimum quality							
EN 206-1 / DIN 1045-2	without danger of frost on the lateral support		C20/25 X0				
	with danger of frost on the lateral support		C25/30 XF1				
The installation examples / ad use constantly are adapted to the technical conditions. With new editions older expenditures lose their validity. Before planning or installation please verify the current version at www.hauraton.com in building construction is a sealing layer below the channels necessary.			Date: 08.12.2015	Our general installation instructions apply.		Format DIN A4 scale 1:8 V4	<p>Werkstr. 13 76437 Rastatt Germany Tel. +49 (0) 72 22 9 58-0 Fax +49 (0) 72 22 9 58-100 info@hauraton.com</p>
** Not for use in continuously frequented areas of carriageways or motorways as well as for areas frequented by buses or trailers trucks			75_000071614 Einbaubeispiel www	RF-Mono-Rinne 100 H280 1m Einbaubeispiel Klasse C 250 in Pflaster			

Installation example pavement, class D 400

**Installation example
Pavement class D 400**

3 - 5 mm durable overhang

The first three rows of paver along the channel run are placed in concrete bedding

Pavement / Flagstone
Pavement bedding
Base course
Frost resistant sub-base

* h = Channel height plus camber

Category according to EN 1433 / DIN 19580	A 15	B 125	C 250	D 400**	E 600	F 900	Applying to following systems: RECYFIX MONOTEC 100, 200
Foundation: with b / thickness d / height h (in cm)				15 / 15 / *			
The named concrete quality is a minimum quality							
EN 206-1 / DIN 1045-2	without danger of frost on the lateral support		C20/25 X0				
	with danger of frost on the lateral support		C25/30 XF1				
The installation examples / ad use constantly are adapted to the technical conditions. With new editions older expenditures lose their validity. Before planning or installation please verify the current version at www.hauraton.com in building construction is a sealing layer below the channels necessary.			Date: 08.12.2015	Our general installation instructions apply.		Format DIN A4 scale 1:8 V5	<p>Werkstr. 13 76437 Rastatt Germany Tel. +49 (0) 72 22 9 58-0 Fax +49 (0) 72 22 9 58-100 info@hauraton.com</p>
** Not for use in continuously frequented areas of carriageways or motorways as well as for areas frequented by buses or trailers trucks			75_000071658 Einbaubeispiel www	RF-Mono-Rinne 100 H280 1m Einbaubeispiel Klasse D 400 in Pflaster			

Installation example concrete, class C 250 - D 400

Installation example concrete class C 250 - D 400

* h = Channel height plus camber

Category according to EN 1433 / DIN 19580	A 15	B 125	C 250	D 400**	E 600	F 900	Applying to following systems: RECYFIX MONOTEC 100, 200
Foundation: with b / thickness d / height h (in cm)			10 / 15 / *	15 / 15 / *			
The named concrete quality is a minimum quality							
EN 206-1 / DIN 1045-2	quality of concrete strength		C30/37 XF4 XM1	C30/37 XF4 XM1			
	with danger of frost on the lateral support		C25/30 XF1	C25/30 XF1			

The installation examples / advice constantly are adapted to the technical conditions. With new editions older expenditures lose their validity. Before planning or installation please verify the current version at www.hauraton.com in building construction is a sealing layer below the channels necessary.

Date: 08.12.2015

Our general installation instructions apply.

Format DIN	A4		Werkstr. 13 76437 Rastatt Germany Tel. +49 (0) 72 22 9 58-0 Fax +49 (0) 72 22 9 58-100 info@hauraton.com
scale	1:8		
	V5		

** Not for use in continuously frequented areas of carriageways or motorways as well as for areas frequented by buses or lorries/trucks

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Installation example asphalt, class C 250 - D 400

Installation example in asphalted areas class C 250 - D 400

* h ≥ Channel height - 10 cm

Category according to EN 1433 / DIN 19580	A 15	B 125	C 250	D 400**	E 600	F 900	Applying to following systems: RECYFIX MONOTEC 100, 200
Foundation: with b / thickness d / height h (in cm)			10 / 15 / *	15 / 15 / *			
The named concrete quality is a minimum quality							
EN 206-1 / DIN 1045-2	without danger of frost on the lateral support		C20/25 X0	C20/25 X0			
	with danger of frost on the lateral support		C25/30 XF1	C25/30 XF1			

The installation examples / advice constantly are adapted to the technical conditions. With new editions older expenditures lose their validity. Before planning or installation please verify the current version at www.hauraton.com in building construction is a sealing layer below the channels necessary.

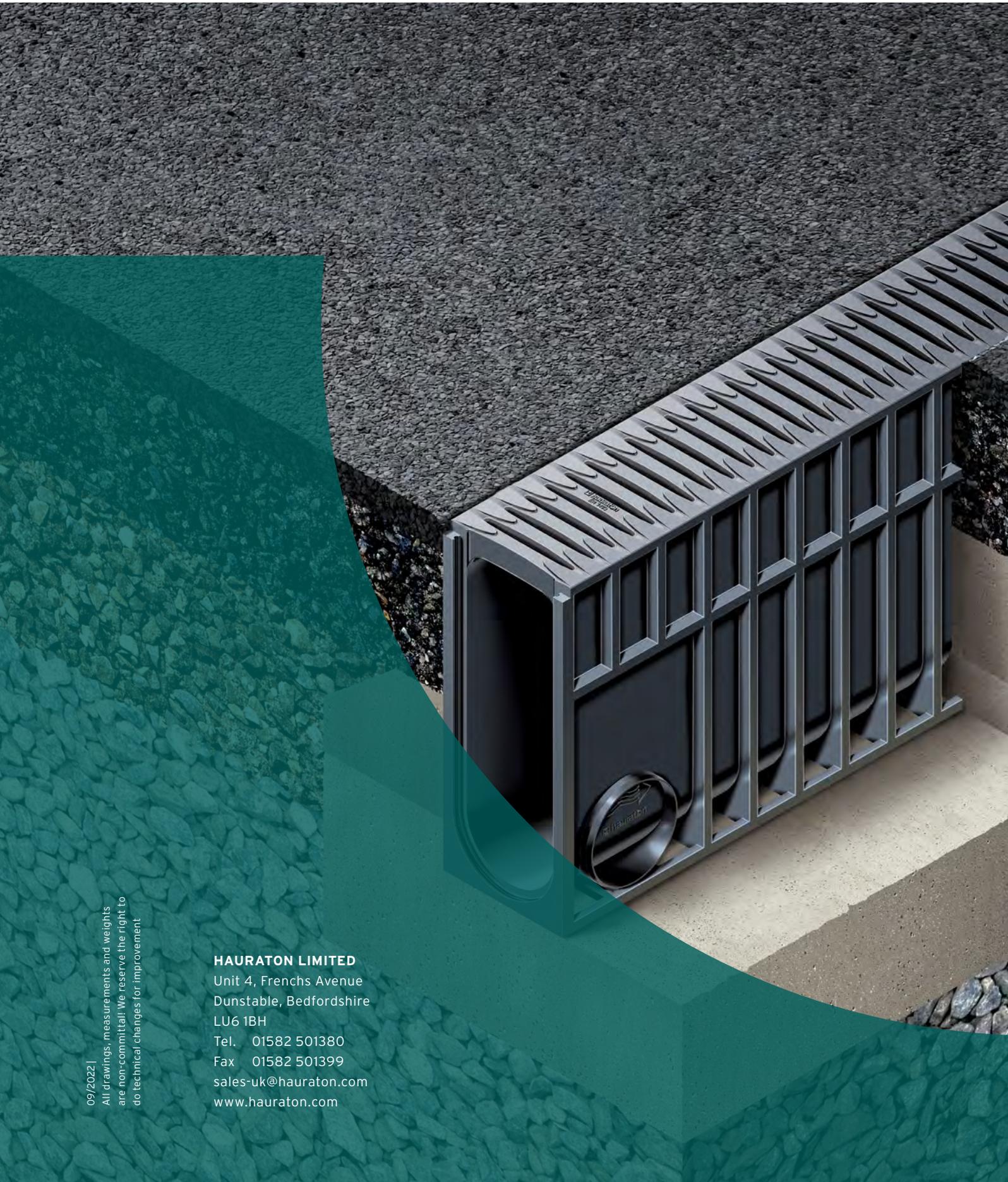
Date: 08.12.2015

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Format DIN	A4		Werkstr. 13 76437 Rastatt Germany Tel. +49 (0) 72 22 9 58-0 Fax +49 (0) 72 22 9 58-100 info@hauraton.com
scale	1:8		
	V9		

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09/2022|

All drawings, measurements and weights are non-committal. We reserve the right to do technical changes for improvement

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