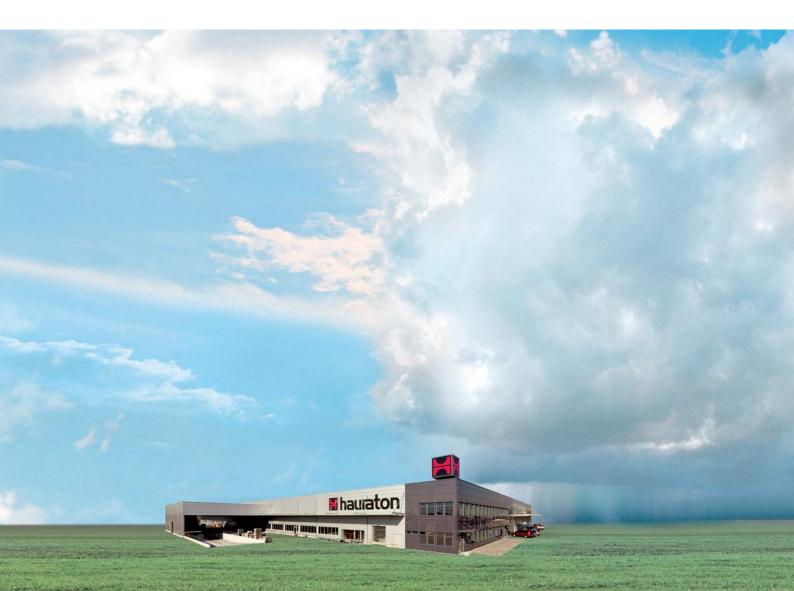


CIVILS LANDSCAPING AQUA SPORT



WELCOME TO HAURATON

The new Mercedes-Benz museum in Stuttgart, the reconstructed Frauenkirche in Dresden and the Emirates stadium, home of the famous English football club Arsenal in London – these are all projects where innovative drainage solutions from HAURATON make sure that stormwater is drained away reliably and buildings are protected against decay. We are a family owned company which for the last 50 years have been successfully developing, producing and selling innovative drainage solutions all over the world. HAURATON offers individual solutions to all its customers – ranging from high-performance channels at airports, motorways and container stations to drainage systems for walk-on flat roofs and terraces. This individual approach is our strength as a family-owned and run company with a short line of decision and focussed on this sector of the market.



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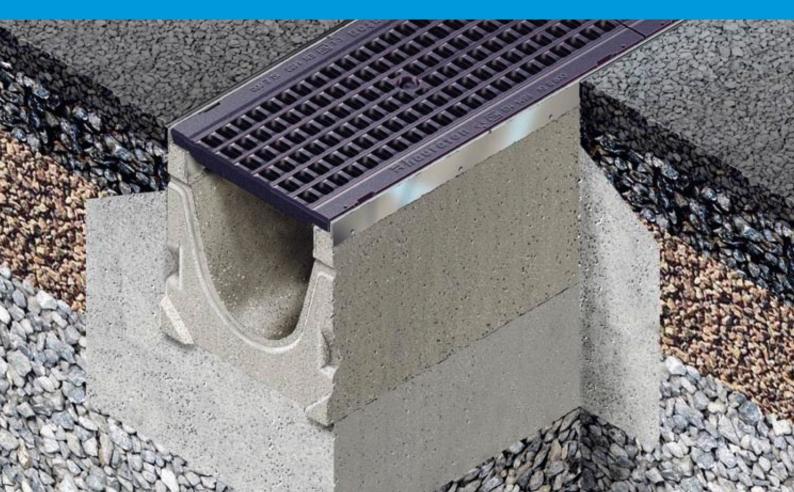
FASERFIX®SERVICE Channels

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CIVILS	LANDSCAPING	AQUA	SPORT	







THE RANGE FOR CIVIL ENGINEERING APPLICATIONS RELIABLE SYSTEMS WITH STRONG PERFORMANCE CHARACTERISTICS FOR DRAINAGE INSTALLATIONS IN TRAFFIC AREAS - A LONG-TERM SAFEGUARD FOR OUR MODERN INFRASTRUCTURE

Mobility is ever more important in our society. To meet that demand, we have built up one of the most modern infrastructure systems, including all modes of transport: road, rail, water and air. Only a well-performing transport infrastructure can guarantee the required mobility now and in the future. As building material suppliers, HAURATON has developed reliable systems with strong performance characteristics in order to contribute to the high quality of our infrastructure and its further development.

In close cooperation with architects, building contractors and building material suppliers we develop individual solutions that meet the most demanding design requirements. HAURATON provides highly qualified professional advice and technical support during the design phase as well as the construction phase. Decades of experience in the field of traffic area drainage and our innovative approach combine to provide the designer with the most reliable solutions.

Drainage concepts can be individually designed for customers, involving a diverse range of materials: fibre-reinforced concrete, ductile iron, steel, stainless steel or PE-PP materials. And of course it is also possible to combine materials for special duties. HAURATON products meet all common standards and regulations. To maintain a high level of quality, HAURATON cooperates with specialist institutes for external monitoring of products and internal processes based on regular quality checks – our customers' guarantee for reliable design and long-lasting solutions.



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SEE THE RESPECTIVE PRODUCT SECTIONS

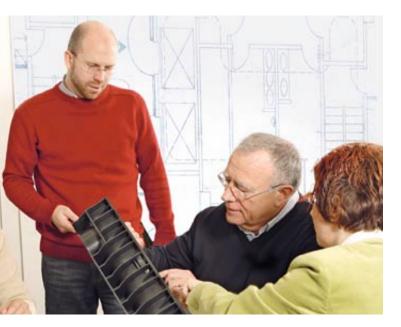
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THE HAURATON SERVICE PACKAGE

GOOD TEAMWORK IS THE BASIS FOR A PERFECT RESULT. HAURATON COOPERATES WITH ARCHITECTS AND ENGINEERS RIGHT FROM THE CONCEPTUAL STAGE AND OFFERS A FREE RANGE OF SERVICES.

INDIVIDUAL DESIGN SUPPORT

Designing solutions for the many and diverse demands in the field of surface drainage requires detailed knowledge, great expertise and extensive experience. Our experts, both in field sales as well as in the office, are fully trained to answer technical and product-specific questions to be able to provide you with competent and individual advice. We will support your individual building project from project-related tender documents through to production - even where the brief calls for unusual duties and design. We support you, even if a solution for your special drainage requirements cannot be found from our standard range of products - custom-built products to your specification are our strength. We will manufacture almost anything for you. Give us a call or send us an email! We are always available for you and look forward to answering your individual questions regarding drainage solutions.



LAYOUT PLANS

As well as hydraulic performance calculations we also produce site-related layout plans. The CAD-produced drawings show the exact location of drainage channels, including the positions of end caps, trash boxes and other fittings. In addition, we will produce a parts list with the designation and quantity of products required for the job. For the production of the layout plans we will need your site-specific details. We will produce the layout plans for you free of charge - why not make use of our service!

HYDRAULIC CALCULATIONS

The functionality of a drainage system depends to a large extent on the hydraulic performance of the drainage channels installed. In order to make it easier for you to make an informed decision about the type and route of the drainage channels we produce hydraulic performance calculations for your specific site. The program for determining the hydraulic performance of our drainage channels has been developed at the University of Prague. The staff in our CAD department just needs some site information such as the size of the area to be drained, surface covering, intensity of rainfall, type of channels, etc. Of course, this service is free of charge – just talk to one of our internal or field sales staff!

5 TTE OUR ADVANTAGES FOR THE ENGINEER

2.12 1.14

- Highly reliable design solutions based on
 - quality certification in accordance with DIN EN ISO 9001:2000
 - products complying with DIN V 19580/EN 1433 - CE-marking
 - Individual support for your designs
 - Hydraulic calculations and routing plans
 - Project-specific specifications
 - Current product information available
 - on the Internet Numerous practical download class available

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SECURITY FOR THE PLANNERS

HAURATON PROVIDES CUSTOMERS WITH THE BEST POSSIBLE BASIS FOR RELIABLE DESIGNS. OUR PRODUCTS AND PROCESSES ARE CONTINUALLY MONITORED AND ARE SUBJECT TO STRINGENT QUALITY REQUIREMENTS.

DIN EN 1433/CE-MARK HAURATON CHANNELS COMPLY WITH DIN V 19580/EN 1433

- high lateral strength without supporting grating, during transport and for the installation - including adjusting piece
- U-profiles for highly efficient drainage with selfcleaning effect
- □ simple and safe sealing via safety joint
- □ tongue and groove connection for precise installation
- FASERFIX SUPER KS 100 channels are fitted with 4mm housing profiles and provide maximum safety
- maximum resistance to the effects of salt and weather, including frost
- different models for long drainage runs with different degrees of built-in fall
- built-in fall of 0.6% for improved hydraulics and fast drainage speed
- large back-pressure volume through construction depths of up to 280 mm
- large selection of gratings for all types of applications and visual requirements

HAURATON offers the largest range of EN-compliant drainage channels.

QUALITY CERTIFICATION IN ACCOR-DANCE WITH DIN EN ISO 9001:2000

As one of the first companies in the building industry, HAURATON achieved quality certification in accordance with DIN EN ISO 9001 back in 1993. Since then, quality standards have been driven up continuously, including regular certification.

The quality requirements of DIN EN ISO 9001:2000 cover not only the products but the whole company, including development, design, production, assembly and customer service. HAURATON's quality management in accordance with DIN EN ISO 9001:2000 provides the highest degree of liability and safety to our customers.



STANDARDS, APPROVALS AND WARRANTY

HAURATON channels are not only certified in accordance with DIN EN 1433 but also with the considerably more stringent German DIN V 19580. CE mark, external monitoring and conformity statement are guarantees for the engineer that ensure the highest technical standard. The channels' resistance to frost and salt, their robust construction and ability to be sealed ensure that they will provide many years of service. HAURATON was one of the first manufacturers in the building industry to voluntarily offer a guarantee period of 5 years. We also hold a General Building Control Approval by the DIBt (German Institute for Building Technology) for special applications in industrial locations where liquids that are hazardous to water as per § 19 WHG (Water Resources Act) are handled, stored or decanted, such as tank installations.

Channel systems covered by the approval:

FASERFIX SUPER channels, approval no. Z-74.4-68 FASERFIX BIG SL channels, approval no. Z-74.4-67 FASERFIX BIG BL channels, approval no. Z-74.4-66

GUGI-DUCTILE IRON MESH GRATINGS

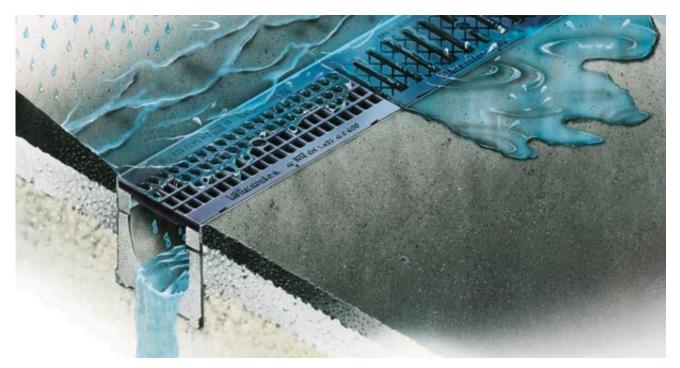
HAURATON WAS THE FIRST COMPANY TO INTRODUCE THE GUGI-DUCTILE IRON MESH GRATINGS TO THE MARKET AND HAS CREATED A PERFECT SYMBIOSIS OF HIGH-VOLUME DRAINAGE CAPACITY WITH ROBUST CONSTRUCTION.

THE BEST IN STRUCTURAL STRENGTH AND DRAINING PERFORMANCE

The GUGI-Ductile iron mesh grating is the ideal combination of large-volume drainage and high structural strength. HAURATON offers the GUGI-Ductile iron mesh grating with its FASERFIX and RECYFIX channels.

The geometry of the GUGI-Ductile iron mesh grating prevents water from flowing right across the grating. At the same time, the grating offers all the high qualities associated with ductile iron. In the GUGI grating, the web in both directions is more solid than that of other gratings, resulting in a significant improvement in stability.

GUGI-Ductile iron mesh gratings are available up to category F 900.



BOLTLESS LOCKING SYSTEM **SIDE-LOCK**

THE POWER OF INNOVATION AT THE HIGHEST TECHNICAL LEVEL.

THE TIME-SAVING REVOLUTION OF BOLTLESS LOCKING

SIDE-LOCK is a unique locking system that is fitted completely without accessory parts. Simply lay the grating into its housing on the channel and engage it by stepping on it. When you hear a 'click', the grating is in place, providing full road safety. In order to clean the channels, the grating can be levered up extremely fast using a simple tool (a pry bar or robust screwdriver). SIDE-LOCK thus saves 90% of the time it takes to fix and release the gratings. SIDE-LOCK has been developed by HAURATON and is protected by patents.

CONVINCING TECHNOLOGY

The cross-section of the channels remains free allowing the surface water to flow away without restriction. SIDE-LOCK will also lock the gratings in longitudinal direction. This ensures that the gratings cannot 'travel' along the channels and remain reliably in position.

INTELLIGENT MULTI-FUNCTIONAL STEEL ANGLE HOUSING PROVIDES FLEXIBLE FIXING OPTIONS

SIDE-LOCK will lock the gratings to the channels providing full road safety. In the case of increased loads, particularly in areas of heavy traffic or where additionally safety is required, the gratings can also be bolted to the multi-functional steel angle housing or fixed with a locking handle, giving a degree of flexibility no other channel system can provide.

INSTALLATION



1. PUT SIDE-LOCK IN PLACE



2. STEP ON IT - 'CLICK' - READY!



To unlock the grating, insert a flat-headed screwdriver at the marked point.

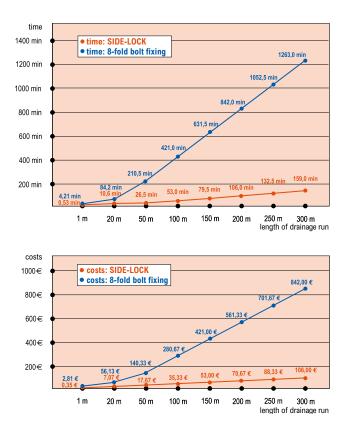
Ductile iron gratings can also be lifted with a pry bar.

REMOVING A SIDE-LOCK GRATING



PRACTICAL TEST: TOP EFFICIENCY IS ACHIEVED WITH THE SIDE-LOCK BOLTLESS LOCKING SYSTEM DEVELOPED BY HAURATON

A test demonstrates the advantage over conventional locking systems. In the test a maintenance routine of a channel run was simulated as it would be in practice and investigated to see how long it takes to lift a grating, lay it down beside the channel, pick it up and lock it again. The SIDE-LOCK boltless locking system was tested against a conventional system with 8-fold bolt fixing per linear metre. The results speak for themselves: with the SIDE-LOCK boltless locking system the described process took 31.8 seconds (= 0.53 minutes). The time recorded for the equivalent process, but using gratings with 8-fold bolt fixings, was 4 minutes and 12.6 seconds (= 4.21 minutes). That results in a time saving of 3 minutes and 40.8 seconds per linear metre when using SIDE-LOCK. The diagram shows this huge difference, which becomes even more obvious when you multiply the time factor with an hourly rate of EUR 40.00. Conclusion: users save time and money with SIDE-LOCK!



FASERFIX®

EXTREMELY ROBUST - IN ANY APPLICATION. FIBRE-REINFORCED CONCRETE FOR THE MOST HEAVY-DUTY SERVICE.

A MATERIAL FOR ALL SITUATIONS

For a long time, drainage channels have been manufactured from conventional concrete. From the beginning of the seventies, HAURATON has been using fibrereinforced concrete for channel production. By adding exactly dosed quantities of fibres, the strength of the concrete was increased significantly while at the same time reducing its weight. That made it possible to have significantly reduced wall thicknesses. Today, this fibrereinforced concrete is the material used in all FASERFIX products.

LEARNING FROM NATURE

Even before the term 'bionics' became popularly known, HAURATON made use of this science in order to take a decisive step forwards in the development of its products. Bionics applies biological principles in technology, following nature's example. Plants and trees are compound fibre materials with cellulose fibres. Likewise, human and animal bones are formed from interlaced fibre bundles, which is how they achieve their great strength

BIOLOGY AND TECHNOLOGY

The fibre-reinforced concrete used in FASERFIX products follows the example of nature. Just as with trees, plants or bones, the fibres form a densely interwoven network that makes the reinforced concrete extremely strong at the same time, the fibres reduce the density of the material - which is therefore much lighter than traditional concrete.

PREPARED FOR ANY APPLICATION

Owing to its unique properties, FASERFIX is used for all kinds of applications. For example in heavy-load areas such as airports, industrial plants and filling stations. But also in areas with a high traffic volume such as motorways or trunk roads. And likewise, in various versions, in private and commercial applications.



HAURATON

COMPETITOR PRODUCT





Don't be fooled into believing that a V is the same as a U! Channels with V-profiles have been about for a long time; they are not an innovation. Many years ago, FASERFIX SUPER channels have already been manufactured in this profile in different nominal sizes.

FLOW RATE

Tests and hydraulic calculations have confirmed that channels with a U-shaped cross section have a draining capacity that is up to 30% greater than that of channels with a V-shaped cross section, assuming the same nominal width and construction height. Conversely that means that channels with a V-shape reach the limit of their capacity much sooner whilst the U-shaped channels will still have reserve capacity. The measured flow rate is the same for both shapes at each point within the channel; likewise the mean flow rate. So it is clear that the U shape has clear advantages over the V shape.

BETTER CLEANING EFFECT

Imagine that a certain amount of dirt has accumulated at the base of the channel. In the U-shaped channel the the surface area for silt to build up is much greater than in the V-shaped channel. This is a clear indicator for the cleaning performance: whilst both types of channels feature equal flow rates, the U shape offers a greater surface of dirt to the water which carries the dirt away. The channel will clean itself quicker. An additional factor is that due to the increasing restriction of space towards the bottom of the V channel the layer of dirt can only grow upwards, which reduces the cross section available for the draining function.

FASERFIX®SUPER KS FASERFIX®SUPER

THE COMPLETE DRAINAGE SYSTEM - EXTREMELY ROBUST. FOR EXPOSURE TO HEAVY GOODS VEHICLES IN PUBLIC AREAS AND INDUSTRY.





AT A GLANCE

- ☑ Highest bending tensile strength
- Patented SIDE-LOCK boltless locking system
- 🗹 Available with built-in fall

Ben

☑ With safety joint for easy sealing





FASERFIX®SUPER KS FASERFIX®SUPER

THE COMPLETE DRAINAGE SYSTEM - EXTREMELY ROBUST. FOR EXPOSURE TO HEAVY ROAD TRAFFIC IN PUBLIC AREAS AND INDUSTRY.

REQUIREMENT

Surface water in all kinds of areas must be allowed to drain away quickly and reliably. This requires drainage channels that will permanently withstand the loads applied from the expected traffic conditions. In particular this applies to zones exposed to heavy traffic in public and industrial areas. In addition to their technical function, drainage channels are expected to contribute visually to the attractiveness of surfaces with their form, colour and the material of the gratings. Some special applications also call for flexible channel systems - the products must be capable of being adapted to all drainage tasks.



SOLUTION

FASERFIX SUPER channels offer solutions for any type of application in heavy duty traffic areas. They are manufactured from fibre-reinforced concrete which, compared to normal concrete, has greater strength and reduced thickness of the side walls. In addition, they feature a higher bending tensile strength. No supporting backing of the channel body is required during installation. There are no restricting cross ridges in the base of the channel. The top edges and bearing surfaces for the gratings consist of corrosion-proof angle housings in galvanised steel or stainless steel which are firmly tied to the channel body through ties that reach down to the base of the channel. FASERFIX SUPER are resistant to frost and salt. The lower parts of the channels feature safety joints that can be sealed during installation against liquids, using elastic injection sealers such as the MASTERFLEX 700 FR gun grade polysulphide sealing compound. The channels can be supplied with or without in-built fall. Finally, numerous gratings for different load classes are available in the materials ductile iron, galvanised steel or stainless steel. With the SIDE-LOCK boltless locking system the gratings are safely fixed to the channels. The classification and testing meets the requirements of DIN EN 1433. Upon request we are happy to supply copies of the test certificates issued by the official material testing station at the University of Karlsruhe. FASERFIX SUPER channels are CE-marked.

APPLICATION AREAS

Traffic areas for industry and commerce, trade, trade fairs/exhibitions, railway stations, airports, ports, container handling stations, sewage works, power stations,



Potsdam, Germany



Petrol stations all over the world

building yards, barracks, roads/motorways, petrol stations and service areas, parking lots, traffic-calmed zones, play streets, urban squares etc.



Airport Brussels, Belgium



Main station Berlin, Germany

FASERFIX®SUPER KS FASERFIX®SUPER

TAILOR-MADE SOLUTIONS.

EXAMPLES OF TAILOR-MADE SOLUTIONS FOR INDIVIDUAL CUSTOMER REQUIREMENTS.

In each project the conditions to be handled by a drainage system are different. Therefore systems have to be flexible enough to allow standard products from serial production to be complemented by special items. To achieve that, HAURATON will study the individual requirements of each project and work together with the architects at an early stage. The company has a specialised team dealing exclusively with non-standard solutions – from the outline design stage right through to timely delivery and support during installation. In this way a suitable solution will be found for all applications. HAURATON channels are very flexible and can be adapted individually. Some special formats include cutting to required length, mitred cuts, holes and openings or incorporating connection pipes.

WÖRTH, DaimlerChrysler

On a site of about 550,000 square metres very close to the factory in Wörth, DaimlerChrysler is in the process of constructing the so-called EVZ – a development and test centre with test runs for putting heavy goods vehicles (HGV) through their paces. There are various stretches of track, one of them an automated bad surface track (ASW), on which prototypes and serial models are put through tough long-distance tests, with some of the vehicles being controlled via remote control.

For building projects of such dimensions the FASERFIX SUPER drainage system is the ideal solution. Standard production parts are complemented with customised channels that have been designed at the factory and are easy to install by the contractors following the installation instructions that are also supplied. Numerous mitred cuts, non-standard lengths and connection holes make up the complex drainage network that follows the routing of the test tracks.

Design of the ASW: Tilke - Engineers and Architects, Aachen/Olpe

Contractor: ASW Consortium, including the companies Strabag, Züblin, Grötz and Reif







The scheme comprises the following HAURATON channels: 2.500 m FASERFIX SUPER KS 100 850 m FASERFIX SUPER 150 200 m FASERFIX TRAFFIC SUPERBLOC 200

FASERFIX®TRAFFIC

MANNHEIM, SHUNTING YARD

For safety reasons, overhead power lines at railway stations have to be earthed. For the shunting yard at Mannheim, HAURATON has developed a system together with Deutsche Bahn which combines drainage channels with an earth conductor. The solution provides one earthing cube per linear metre of channel which has been incorporated into the channel body underneath the angle housing. These are connected to earthing cables of 1 cm thickness. The function of the SIDE-LOCK boltless locking system remains fully intact.

WAGHÄUSEL, SITEC

The Sitec company is part of the glass industry. Its products are manufactured on highly technical machines and in extreme temperatures. A channel system has been developed for the company's factory floors that combines the routing of service pipes for the machines with a reliable drainage system. At the outline design stage, the project team at HAURATON developed a complex system comprising FASERFIX SUPER channels of different nominal widths. The factory produced numerous adapters between different nominal widths as well as T-pieces and crossovers that fitted exactly and were quick to install.









FASERFIX®SUPER KS FASERFIX®SUPER

TAILOR-MADE SOLUTIONS.

EXAMPLES OF TAILOR-MADE SOLUTIONS FOR INDIVIDUAL CUSTOMER REQUIREMENTS.

"BISCHOFSHEIM, AM WINGERTSPFAD": EMBANKMENT CHANNEL WITH CLOSING GRATING

At the new construction site "Am Wingertspfad" in Bischofsheim open FASERFIX SUPER channels were used in different nominal widths to drain the precipitation water to the central percolation area. The whole drainage network consists of FASERFIX SUPER channels in different nominal widths and types. At the end of the drainage lines the water emerges into the open through a channel that has been truncated to suit the existing slope of the embankment as specified by the customer. An exit grating was fitted to safeguard the system.

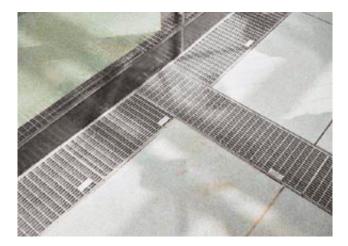






"DRESDEN, WIENER PLATZ"

The "Wiener Platz" is the central traffic hub in Dresden. The different transport modes, such as railway, cars and buses, tramway, bicycles and wheelchairs are interlinked on different levels. For a visually appealing streetscape design of surfaces and façades, the FASERFIX SUPER channels and FASERFIX POINT yard gullies were fitted with custom-fabricated stainless steel gratings. A special request from the client and architects was the narrow mesh size of the gratings that provides better safety for pedestrians, cyclists and wheelchair users and prevents the ingress of coarser dirt items into the drainage system. The effect adds to the harmonious overall design that does justice to the outstanding architecture.





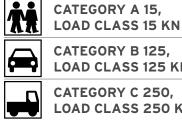


THE COMPLETE DRAINAGE SYSTEM - EXTREMELY ROBUST. FOR EXPOSURE TO HEAVY ROAD TRAFFIC IN PUBLIC AREAS AND INDUSTRY.

HIGH-STRENGTH SIDEWALLS OWING TO FIBRE-REINFORCED CONCRETE

The standard DIN EN 1433 stipulates sufficient sidewall strength for transport and installation, i.e. without the bracing effect from the gratings that are installed subsequently. The U shape of our drainage channels has passed the test of time over many years. FASERFIX SUPER channels are manufactured from fibre-reinforced concrete. The sidewalls are uniformly slender and very robust - even for short non-standard lengths. FASERFIX SUPER KS and FASERFIX SUPER channels can be installed without the gratings being fitted.

FASERFIX SUPER KS and FASERFIX SUPER channels meet the requirements of DIN EN 1433 and are suitable for the following load categories:



CATEGORY B 125, LOAD CLASS 125 KN CATEGORY C 250. LOAD CLASS 250 KN

CATEGORY D 400, LOAD CLASS 400 KN



CATEGORY E 600, LOAD CLASS 600 KN

CATEGORY F 900, LOAD CLASS 900 KN

SAFETY IN PEDESTRIAN ZONES FASERFIX SUPER channels with their great choice of gratings are also used in pedestrian zones, on market squares and other public areas. To provide greater safety for pedestrians, the gratings with narrow slot

sizes were developed.



Δ

Fibre-reinforced concrete channels to DIN V 19580/ EN 1433, CE-compliant, with safety joint, steel frame and SIDE-LOCK boltless locking mechanism as well as tongue and groove for exact installation



 Trash box with drainage connection options on 3 sides, integrated KG sleeve DN 100 and removable mud bucket

3

End caps with and without outlets



Numerous grating options, e.g. GUGI-Ductile iron mesh gratings

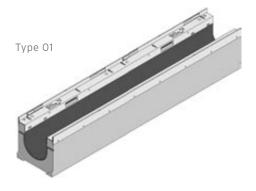
GRATING OPTIONS

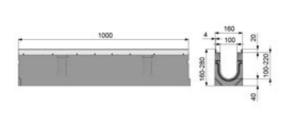
FASERFIX® SUPER KS CHANNELS AND FASERFIX® SUPER CHANNELS

	GUGI-Ductile Ductile iron Mesh grating* Slotted grating* iron mesh grating* grating*		Perforated Closed covers* grating*			covers*	Longitudinal grating*							
Load categories														
	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER
A 15							100						100	
B 125					100									
C 250			100, 150, 200	300	100, 150, 200	300	100		100		100			
D 400			100, 150, 200	300, 400										
E 600	100, 150, 200	150, 200, 300, 400	100, 150	150, 200, 500	100, 150, 200						100	300, 400		
F 900	100		100, 150	150, 200, 300, 400										

* sizes are nominal widths

FASERFIX®SUPER KS 100 - Channel lower parts



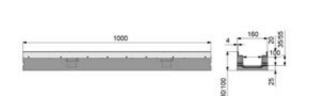


	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg r	Article No. galva- Article hised angle housing steel a	
Туре 01	1000	160	160	89	35,0	8000	8200
Type 01L with hole*	1000	160	160		34,0	8045	-
Туре 05	1000	160	184		37,0	8041	-
Туре 010	1000	160	214	143	43,0	8042	8242
Type 010L with hole*	1000	160	214		41,5	8046	-
Туре 015	1000	160	244	173	45,0	8043	8243
Туре 020	1000	160	274	203	49,0	8044	8244
Туре 0105	500	160	160	89	16,5	8049	8249
Туре 01005	500	160	214		21,5	8050	-

*Distance from middle of the hole (DN100) to the end of the channel: 100 mm. The quality of the stainless steel material is according CNS 1.4301.

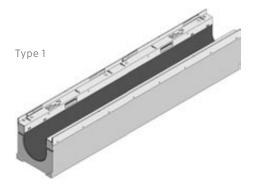
FASERFIX®SUPER KS 100 - Channel lower parts flat

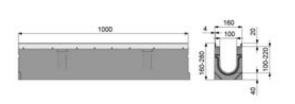




	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	5	Article No. galva- Arti sed angle housing ste	
Type 80F	1000	160	80	34	17,5	1106	1706
Type 100F	1000	160	100	54	20,0	1108	1708

FASERFIX®SUPER KS 100 - Channel lower parts built-in fall 0,6 %

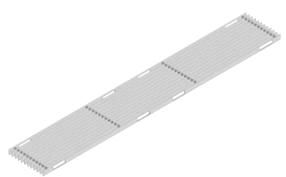




	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	5	Article No. galva- Artinised angle housing ste	
Туре 1	1000	160	160 - 166	89	35,0	8001	8201
Туре 2	1000	160	166 - 172	95	36,5	8002	8202
Туре З	1000	160	172 - 178	101	37,5	8003	8203
Туре 4	1000	160	178 - 184	107	38,0	8004	8204
Туре 5	1000	160	184 - 190	113	38,5	8005	8205
Туре 6	1000	160	190 - 196	119	39,0	8006	8206
Туре 7	1000	160	196 - 202	125	40,0	8007	8207
Туре 8	1000	160	202 - 208	131	40,5	8008	8208
Туре 9	1000	160	208 - 214	137	41,5	8009	8209
Туре 10	1000	160	214 - 220	143	42,5	8010	8210
Туре 11	1000	160	220 - 226	149	43,0	8011	8211
Туре 12	1000	160	226 - 232	155	43,5	8012	8212
Туре 13	1000	160	232 - 238	161	44,0	8013	8213
Туре 14	1000	160	238 - 244	167	44,5	8014	8214
Type 15	1000	160	244 - 250	173	45,5	8015	8215
Туре 16	1000	160	250 - 256	179	46,5	8016	8216
Туре 17	1000	160	256 - 262	185	47,0	8017	8217
Туре 18	1000	160	262 - 268	191	47,5	8018	8218
Туре 19	1000	160	268 - 274	197	48,0	8019	8219
Туре 20	1000	160	274 - 280	203	48,0	8020	8220

FASERFIX®SUPER KS 100 - Gratings, class A 15





Slotted grating SW 80/10, galvanised

galvanised

Longitudinal slot grating, slot distance 10 mm, stainless steel

	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Slotted grating SW 80/10, galvanised	1000	149	20	278	2,7	8161
Slotted grating SW 80/10, galvanised	500	149	20	278	1,4	8162
Slotted grating SW 80/10, stainless steel	1000	149	20	278	2,7	8163
Slotted grating SW 80/10, stainless steel	500	149	20	278	1,4	8164
Longitudinal slot grating, slot distance 10 mm, stainless steel	1000	149	20	727	5,8	8590
Longitudinal slot grating, slot distance 10 mm, stainless steel	500	149	20	727	2,9	8591
Traverse bar grating, stainless steel	1000	149	20	902	7,5	8594
Traverse bar grating, stainless steel	500	149	20	902	3,8	8595

The quality of the stainless steel material is according CNS 1.4301.

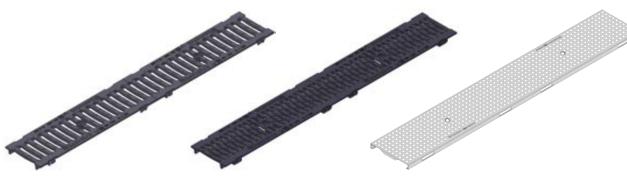
FASERFIX®SUPER KS 100 - Gratings, class B 125



Mesh grating MW 30/30, galvanised

	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Mesh grating MW 30/10, galvanised	1000	149	20	716	3,9	8151
Mesh grating MW 30/10, galvanised	500	149	20	716	2,0	8152
Mesh grating MW 30/30, galvanised	1000	149	20	878	3,2	8077
Mesh grating MW 30/30, galvanised	500	149	20	869	1,6	8078

FASERFIX®SUPER KS 100 - Gratings, class C 250



Ductile iron grating, SW 100/14, black



Perforated grating Ø 6, galvanised

Reinforced slotted grating SW 80/10, galvanised

	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating, SW 100/14, black	500	149	20	454	3,4	8064
Ductile iron grating, heel safe	500	149	20	280	3,4	8068
Mesh grating MW 30/10, galvanised	1000	149	20	716	5,4	8154
Mesh grating MW 30/10, galvanised	500	149	20	716	2,7	8155
Mesh grating 30/10 stainless steel	1000	149	20	776	5,2	8577
Mesh grating, stainless steel	500	149	20	766	2,6	8578
Mesh grating MW 30/30, galvanised	1000	149	20	828	4,9	8073
Mesh grating MW 30/30, galvanised	500	149	20	819	2,5	8074
Reinforced slotted grating SW 80/10, galvanised	1000	149	20	281	5,4	8167
Reinforced slotted grating SW 80/10, galvanised	500	149	20	281	2,7	8168
Reinforced slotted grating SW 80/10, stainless steel	1000	149	20	281	5,0	8169
Reinforced slotted grating SW 80/10, stainless steel	500	149	20	281	2,5	8170
Perforated grating Ø 6, galvanised	1000	149	20	99	5,4	8171
Perforaded grating Ø 6, galvanised	500	149	20	99	2,7	8172
Perforated grating Ø 6, stainless steel	1000	149	20	99	6,8	8177
Perforated grating Ø 6, stainless steel	500	149	20	99	3,4	8178
Solid cover, galvanised	1000	149	20	0	5,5	8191
Solid cover, galvanised	500	149	20	0	2,8	8192

FASERFIX®SUPER KS 100 - Gratings, class D 400*



Ductile iron grating, SW 100/14, black

	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating, SW 100/14, black	500	149	20	454	3,6	8063

* Not for use across the carriageway of highways or motorways in moving traffic.

FASERFIX®SUPER KS 100 - Gratings, class E 600



	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating MW 20/30, black	500	149	20	426	4,0	8079
GUGI-Ductile iron mesh grating MW 20/30, galvanized	500	149	20	426	4,2	8080
Ductile iron grating SW 100/14, black	500	149	20	454	4,0	8062
Ductile iron grating, heel safe	500	149	20	280	4,1	8066
Mesh grating MW 11/30, galvanised	1000	149	20	695	7,0	8071
Mesh grating MW 11/30, galvanised	500	149	20	695	4,0	8072
Mesh grating MW 11/30, stainless steel	1000	149	20	695	7,0	8571
Mesh grating MW 11/30, stainless steel	500	149	20	695	4,0	8572
Ductile iron grating closed, black	500	149	20	0	4,6	8262
Ductile iron grating closed, galvanised	500	149	20	0	4,8	8264

FASERFIX®SUPER KS 100 - Gratings, class F 900

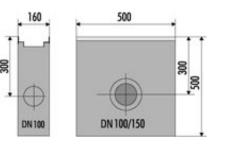


GUGI-Ductile iron mesh grating, black

	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating, black	500	149	20	426	4,8	8060
Ductile iron grating SW 100/14, black	500	149	20	454	4,5	8061

FASERFIX®SUPER KS 100 - Accessories







Trash box with galvanised bucket



Foul air trap DN 100, outside

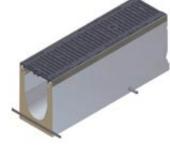
	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised angle housing	Article No. stainless steel angle housing
Trash box with galvanised bucket	500	160	500	50,0	8053	-
Trash box with UPVC-bucket	500	160	500	49,0	8052	8252
Foul air trap DN 100, outside	-	-	-	0,4	961	=
UPVC-outlet DN 100	-	-	-	0,2	903	-



Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**



End cap closed, Type 01



Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)

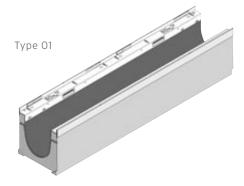
	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised angle housing	Article No. stainless steel angle housing
End cap closed, Type 01	-	160	160	0,4	8081	8181
End cap closed, Type 010	-	160	214	0,5	8082	8182
End cap closed, Type 020	-	160	274	0,7	8083	8183
End cap closed, Type 80F	-	160	80	0,2	1181	1681
End cap closed, Type 100F	-	160	100	0,3	1183	1683
End cap with horizontal UPVC-outlet DN 100, Type 010	-	160	214	0,6	8087	8186
End cap with horizontal UPVC-outlet DN 100, Type 020	-	160	274	0,8	8089	8187
Cutting to length of NW 100	-	-	-	-	990	-
Mitre cuts for NW 100 (two cuts per connection)	-	-	-	-	995	-
Drilling of connecting holes DN 70	-	-	-	-	971	-
Drilling of connecting holes DN 100	-	-	-	-	972	-
Inserting of PVC union connectors DN 70*	-	-	-	-	981	-
Inserting of PVC union connectors DN 100 *	-	-	-	-	982	-
Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**	-	-	-	1,0	19000	-
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000	-
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950	-
Toolkit for sealing material Masterflex 700 FR Gun Grade	-	-	-	3,1	10025	_
Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)	-	-	-	-	703	
Steelbars for fixing system (2 pieces per running metre)	-	-	-	-	704	-

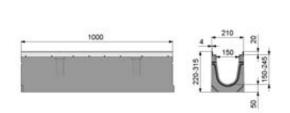
* We can additionally insert SML- or PE-HD outlets on appointment

** Consumption for channely type 020: approx. 65 ml per joint.

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 150 - Channel lower parts





	Length mm	Width mm	Height D mm	rainage cross- sect. cm²	5	5	Article No. stainless steel angle housing
Туре 01	1000	210	220	185	55,0	11000	11500
Type 010	1000	210	265	245	63,5	11042	11542
Туре 020	1000	210	315	312	72,0	11044	11544
Туре 0105	500	210	220	185	30,0	11049	11549

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 150 - Channel lower parts flat

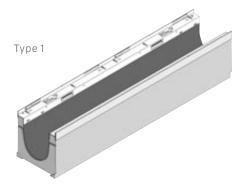


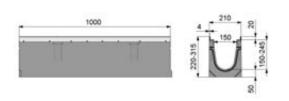


	Length	Width	Height Drainage cross-		Weight	Article No. galva- /	Article No. stainless
	mm	mm	mm	sect. cm²	kg nis	sed angle housing	steel angle housing
Type 110F	1000	210	110	74	29,0	2121	2521
Type 150F	1000	210	150	134	35,0	2122	2522
Type 200F	1000	210	200	208	42,5	2123	2523

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 150 - Channel lower parts built-in fall 0,5 %



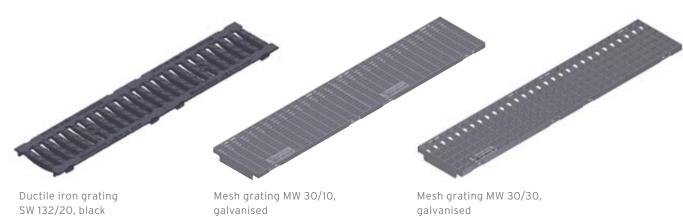


	Length mm	Width mm	Height E mm)rainage cross- sect. cm²	Weight kg r	Article No. galva- / nised angle housing	Article No. stainless steel angle housing
Type 1	1000	210	220 - 225	186	56,1	11001	11501
Туре 2	1000	210	225 - 230	196	56,8	11002	11502
Туре З	1000	210	230 - 235	203	57,7	11003	11503
Туре 4	1000	210	235 - 240	211	58,5	11004	11504
Туре 5	1000	210	240 - 245	218	59,3	11005	11505
Туре 6	1000	210	245 - 250	226	60,2	11006	11506
Туре 7	1000	210	250 - 255	233	61,0	11007	11507
Туре 8	1000	210	255 - 260	241	61,8	11008	11508
Туре 9	1000	210	260 - 265	248	62,7	11009	11509
Туре 10	1000	210	265 - 270	254	63,5	11010	11510

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®POINT

FASERFIX®SUPER KS 150 - Gratings, class C 250



	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 132/20, black	500	199	20	631	5,3	11064
Mesh grating MW 30/10, galvanised	1000	199	20	1105	7,7	11075
Mesh grating MW 30/10, galvanised	500	199	20	1105	4,1	11076
Mesh grating MW 30/10, stainless steel	1000	199	20	1105	8,0	11575
Mesh grating MW 30/10, stainless steel	500	199	20	1105	4,0	11576
Mesh grating MW 30/30, galvanised	1000	199	20	1240	6,8	11073
Mesh grating MW 30/30, galvanised	500	199	20	1240	3,4	11074
Mesh grating MW 30/30, stainless steel	1000	199	20	1240	7,0	11573
Mesh grating MW 30/30, stainless steel	500	199	20	1240	3,5	11574

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 150 - Gratings, class D 400*

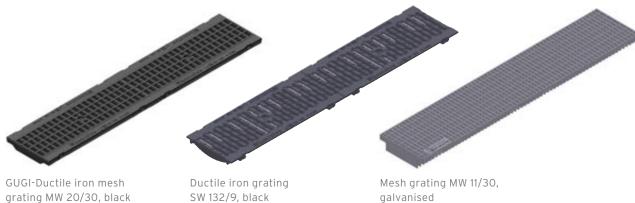


GUGI-Ductile iron mesh grating, black

	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating, black	500	199	20	716	5,5	11067
Ductile iron grating SW 132/20, black	500	199	20	629	5,3	11063

* Not for use across the carriageway of highways or motorways in moving traffic.

FASERFIX®SUPER KS 150 - Gratings, class E 600



SW 132/9, black

galvanised

	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating MW 20/30, black	500	199	20	716	7,7	11068
Ductile iron grating, closed, black	500	199	20	0	7,0	11362
Ductile iron grating SW 132/9, black	500	199	20	557	6,8	11066
Mesh grating MW 11/30, galvanised	1000	199	20	981	20,2	11071
Mesh grating MW 11/30 , galvanised	500	199	20	981	10,1	11072
Mesh grating MW 11/30, stainless steel	1000	199	20	981	21,0	11571
Mesh grating MW 11/30, stainless steel	500	199	20	981	11,0	11572

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 150 - Gratings, class F 900



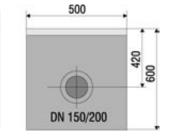
Ductile iron grating SW 132/20, black

	Length mm	width mm	Height mm	Intake cross-sect. cm²/m	Weight KG	Article No.
Ductile iron grating SW 132/20, black	500	199	20	626	7,2	11061

FASERFIX®SUPER KS 150 - Accessories









PVC - connection DN 150

Trash box with galvanised bucket



Foul air trap DN 150	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised angle housing	Article No. stainless steel angle housing
Trash box with galvanised bucket	500	210	600	67,5	11052	11552
Foul air trap DN 150	-	-	-	2,0	960	-
PVC - connection DN 150	-	-	-	0,5	906	-



Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**



End cap closed, type O1

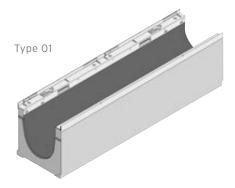


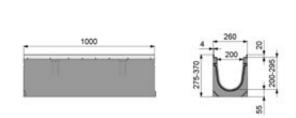
Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)

	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised angle housing	Article No. stainless steel angle housing
End cap closed, type 01	_	210	220	0,9	11081	11581
End cap closed, type 010	-	210	265	0,9	11082	11582
End cap closed, type 020	-	210	315	1,3	11083	11583
End cap closed, type 110F	-	210	110	0,4	2181	2681
End cap closed, type 150F	-	210	150	0,6	2182	2682
End cap closed, type 200F	-	210	200	0,8	2183	2683
End cap with horizontal UPVC - outlet DN 150, type 010	-	210	265	1,1	11087	-
End cap with horizontal UPVC - outlet DN 150, type 020	-	210	315	1,3	11088	-
End cap with horizontal UPVC - outlet DN 150, type 010	-	210	265	1,1	11587	-
End cap with horizontal UPVC - outlet DN 150, type 020	-	210	315	1,3	11588	-
Cutting to length of NW 150	-	-	-	-	991	-
Mitre cuts of NW 150 (two cuts per connection)	-	-	-	-	996	-
Drilling of connecting holes DN 150	-	-	-	-	973	-
Inserting of PVC union connectors DN 150*	-	-	-	-	983	-
Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**	-	-	-	1,0	19000	-
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000	-
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950	-
Toolkit for sealing material Masterflex 700 FR Gun Grade	-	-	-	3,1	10025	-
Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)	-	-	-	-	703	_
Steelbars for fixing system (2 pieces per running metre)	-	-	-	-	704	-

* We can additionally insert SML- or PE-HD outlets on appointment ** Consumption for channely type 020: approx. 94 ml per joint. The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 200 - Channel lower parts





	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	5	Article No. galva- A ised angle housing	
Туре 01	1000	260	275	319	80,0	12000	12500
Туре 010	1000	260	320	409	85,0	12042	12542
Туре 020	1000	260	370	509	93,0	12044	12544
Туре 0105	500	260	275	319	40,5	12049	12549

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 200 - Channel lower parts flat

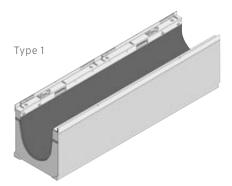


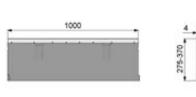


	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	5	5	Article No. stainless steel angle housing
Type 120 F	1000	260	110	89	54,0	3121	3521
Type 150 F	1000	260	150	148	60,0	3122	3522
Type 200 F	1000	260	200	246	67,5	3123	3523

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 200 - Channel lower parts built-in fall 05 %



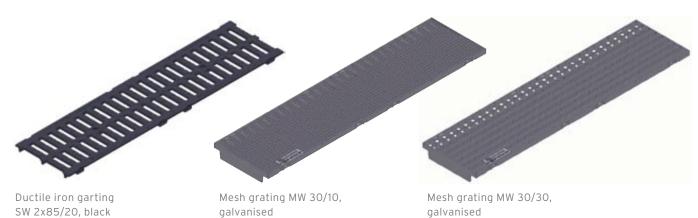




	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg r	Article No. galva- Ar nised angle housing st	
Туре 1	1000	260	275 - 280	324	79,0	12001	12501
Туре 2	1000	260	280 - 285	334	80,6	12002	12502
Туре З	1000	260	285 - 290	344	81,4	12003	12503
Туре 4	1000	260	290 - 295	354	82,2	12004	12504
Туре 5	1000	260	295 - 300	364	83,0	12005	12505
Туре 6	1000	260	300 - 305	374	83,8	12006	12506
Type 7	1000	260	305 - 310	384	84,6	12007	12507
Туре 8	1000	260	310 - 315	394	85,4	12008	12508
Туре 9	1000	260	315 - 320	404	86,2	12009	12509
Туре 10	1000	260	320 - 325	414	87,0	12010	12510

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 200 - Gratings, class C 250



	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron garting SW 2x85/20, black	500	249	20	823	5,8	12064
Mesh grating MW 30/10, galvanised	1000	249	20	1500	11,0	12075
Mesh grating MW 30/10, galvanised	500	249	20	1500	5,8	12076
Mesh grating MW 30/10, stainless steel	1000	249	20	1500	11,0	12575
Mesh grating MW 30/10, stainless steel	500	249	20	1500	5,8	12576
Mesh grating MW 30/30, galvanised	1000	249	20	1681	9,8	12073
Mesh grating MW 30/30, galvanised	500	249	20	1681	5,0	12074
Mesh grating MW 30/30, stainless steel	1000	249	20	1681	9,8	12573
Mesh grating MW 30/30, stainless steel	500	249	20	1681	5,0	12574

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 200 - Gratings, class D 400*



Ductile iron grating SW 2x85/20, black

	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 2x85/20, black	500	249	20	823	6,8	12063

* Not for use across the carriageway of highways or motorways in moving traffic.

FASERFIX®SUPER KS 200 - Gratings, class E 600





Mesh grating MW 11/30, galvanised

GUGI-Ductile mesh grating MW 20/30, black

	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile mesh grating MW 20/30, black	500	249	20	886	9,6	12068
Ductile iron grating, closed, black	500	249	20	0	8,6	12362
Mesh grating MW 11/30, galvanised	1000	249	20	1309	29,7	12071
Mesh grating MW 11/30, galvanised	500	249	20	1309	14,9	12072
Mesh grating MW 11/30, stainles steel	1000	249	20	1309	29,7	12571
Mesh grating MW 11/30, stainless steel	500	249	20	1309	14,9	12572

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 200 - Gratings, class F 900



Ductile iron grating SW 2x85/20, black

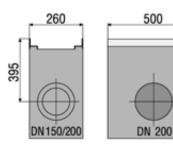
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 2x85/20, black	500	249	20	826	9,2	12061

395

FASERFIX®SUPER KS 200

FASERFIX®SUPER KS 200 - Accessories









Foul air trap DN 150

	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised angle housing	Article No. stainless steel angle housing
Trash box with galvanised bucket	500	260	570	75,5	12052	12525
Trash box with galvanised bucket	500	260	570	75,5	12552	-
Foul air trap DN 150	-	-	-	2,0	960	-
PVC-Connection DN 200	-	-	-	0,8	907	-

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FASERFIX®SUPER KS 200



Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**



End cap closed, Type O1



Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)

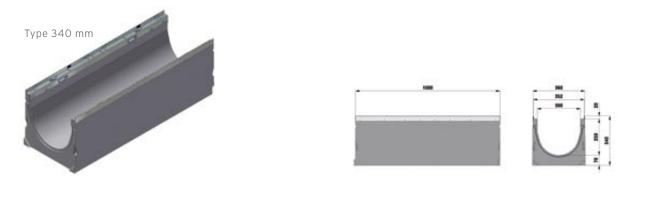
_	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised angle housing	Article No. stainless steel angle housing
End cap closed, Type 01	-	260	275	0,9	12081	12581
End cap closed, Type 010	-	260	320	0,9	12082	12582
End cap closed, Type 020	-	260	370	1,3	12083	12583
End cap, closed, Type 120 F	-	260	110	0,5	3181	3681
End cap, closed, Type 150 F	-	260	150	0,6	3182	3682
End cap, closed, Type 200 F	-	260	200	0,8	3183	3683
End cap with horizontal UPVC-outlet, DN 150, galvanised, Type 010	-	260	320	1,5	12087	12587
End cap with horizontal UPVC-outlet, DN 150, galvanised, Type 020	-	260	370	1,8	12088	12588
Cutting to length of NW 200	-	-	-	-	992	-
Mitre cuts of NW 200 (two cuts per connection)	-	-	-	-	997	-
Drilling of connecting holes DN 200	-	-	-	-	974	-
Inserting of PVC union connectors DN 200*	-	-	-	-	984	-
Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**	-	-	-	1,0	19000	-
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000	_
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950	-
Toolkit for sealing material Masterflex 700 FR Gun Grade	-	-	-	3,1	10025	_
Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)	-	=	-	-	703	
Steelbars for fixing system (2 pieces per running metre)	-	-	-	-	704	_

* We can additionally insert SML- or PE-HD outlets on appointment

** Consumption for channely type 020: approx. 105 ml per joint.

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER KS 300 - Channel lower parts



	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Type 340 mm	1000	360	340	634	117,0	14040

FASERFIX®SUPER KS 300 - Gratings, class E 600



	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating, black	500	349	20	1196	18,6	14068

FASERFIX®SUPER KS 300 - Accessories

End cap closed, type 340



	Length mm	Width mm	Height mm	Weight kg	Article No.
End cap closed, type 340	-	-	_	2,3	14085
Cutting to length of NW 300	-	-	-	-	993
Mitre cuts of NW 300 (two cuts per connection)	-	-	-	-	998
Inserting of PVC union connectors DN 200*	-	-	-	_	984
Sealing material Masterflex 700 FR Gun Grade, cart- ridge 450 ml**	-	-	-	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	_	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	-	-	-	3,1	10025
Fixing-system EP, empty conduit in the channel bot- tom, (2 pieces per running metre)	-	-	-	_	703
Steelbars for fixing system (2 pieces per running metre)	-	-	-	_	704

FASERFIX®SUPER KS FASERFIX®SUPER

THE COMPLETE DRAINAGE SYSTEM - EXTREMELY ROBUST. FOR EXPOSURE TO HEAVY GOODS VEHICLES IN PUBLIC AREAS AND INDUSTRY.





AT A GLANCE

- ☑ Highest bending tensile strength
- Patented SIDE-LOCK boltless locking system
- 🗹 Available with built-in fall

Ben

☑ With safety joint for easy sealing





FASERFIX®SUPER KS FASERFIX®SUPER

THE COMPLETE DRAINAGE SYSTEM - EXTREMELY ROBUST. FOR EXPOSURE TO HEAVY ROAD TRAFFIC IN PUBLIC AREAS AND INDUSTRY.

REQUIREMENT

Surface water in all kinds of areas must be allowed to drain away quickly and reliably. This requires drainage channels that will permanently withstand the loads applied from the expected traffic conditions. In particular this applies to zones exposed to heavy traffic in public and industrial areas. In addition to their technical function, drainage channels are expected to contribute visually to the attractiveness of surfaces with their form, colour and the material of the gratings. Some special applications also call for flexible channel systems - the products must be capable of being adapted to all drainage tasks.



SOLUTION

FASERFIX SUPER channels offer solutions for any type of application in heavy duty traffic areas. They are manufactured from fibre-reinforced concrete which, compared to normal concrete, has greater strength and reduced thickness of the side walls. In addition, they feature a higher bending tensile strength. No supporting backing of the channel body is required during installation. There are no restricting cross ridges in the base of the channel. The top edges and bearing surfaces for the gratings consist of corrosion-proof angle housings in galvanised steel or stainless steel which are firmly tied to the channel body through ties that reach down to the base of the channel. FASERFIX SUPER are resistant to frost and salt. The lower parts of the channels feature safety joints that can be sealed during installation against liquids, using elastic injection sealers such as the MASTERFLEX 700 FR gun grade polysulphide sealing compound. The channels can be supplied with or without in-built fall. Finally, numerous gratings for different load classes are available in the materials ductile iron, galvanised steel or stainless steel. With the SIDE-LOCK boltless locking system the gratings are safely fixed to the channels. The classification and testing meets the requirements of DIN EN 1433. Upon request we are happy to supply copies of the test certificates issued by the official material testing station at the University of Karlsruhe. FASERFIX SUPER channels are CE-marked.

APPLICATION AREAS

Traffic areas for industry and commerce, trade, trade fairs/exhibitions, railway stations, airports, ports, container handling stations, sewage works, power stations,



Potsdam, Germany



Petrol stations all over the world

building yards, barracks, roads/motorways, petrol stations and service areas, parking lots, traffic-calmed zones, play streets, urban squares etc.



Airport Brussels, Belgium



Main station Berlin, Germany

FASERFIX®SUPER KS FASERFIX®SUPER

TAILOR-MADE SOLUTIONS.

EXAMPLES OF TAILOR-MADE SOLUTIONS FOR INDIVIDUAL CUSTOMER REQUIREMENTS.

In each project the conditions to be handled by a drainage system are different. Therefore systems have to be flexible enough to allow standard products from serial production to be complemented by special items. To achieve that, HAURATON will study the individual requirements of each project and work together with the architects at an early stage. The company has a specialised team dealing exclusively with non-standard solutions – from the outline design stage right through to timely delivery and support during installation. In this way a suitable solution will be found for all applications. HAURATON channels are very flexible and can be adapted individually. Some special formats include cutting to required length, mitred cuts, holes and openings or incorporating connection pipes.

WÖRTH, DaimlerChrysler

On a site of about 550,000 square metres very close to the factory in Wörth, DaimlerChrysler is in the process of constructing the so-called EVZ – a development and test centre with test runs for putting heavy goods vehicles (HGV) through their paces. There are various stretches of track, one of them an automated bad surface track (ASW), on which prototypes and serial models are put through tough long-distance tests, with some of the vehicles being controlled via remote control.

For building projects of such dimensions the FASERFIX SUPER drainage system is the ideal solution. Standard production parts are complemented with customised channels that have been designed at the factory and are easy to install by the contractors following the installation instructions that are also supplied. Numerous mitred cuts, non-standard lengths and connection holes make up the complex drainage network that follows the routing of the test tracks.

Design of the ASW: Tilke - Engineers and Architects, Aachen/Olpe

Contractor: ASW Consortium, including the companies Strabag, Züblin, Grötz and Reif







The scheme comprises the following HAURATON channels: 2.500 m FASERFIX SUPER KS 100 850 m FASERFIX SUPER 150 200 m FASERFIX TRAFFIC SUPERBLOC 200

FASERFIX®TRAFFIC

MANNHEIM, SHUNTING YARD

For safety reasons, overhead power lines at railway stations have to be earthed. For the shunting yard at Mannheim, HAURATON has developed a system together with Deutsche Bahn which combines drainage channels with an earth conductor. The solution provides one earthing cube per linear metre of channel which has been incorporated into the channel body underneath the angle housing. These are connected to earthing cables of 1 cm thickness. The function of the SIDE-LOCK boltless locking system remains fully intact.

WAGHÄUSEL, SITEC

The Sitec company is part of the glass industry. Its products are manufactured on highly technical machines and in extreme temperatures. A channel system has been developed for the company's factory floors that combines the routing of service pipes for the machines with a reliable drainage system. At the outline design stage, the project team at HAURATON developed a complex system comprising FASERFIX SUPER channels of different nominal widths. The factory produced numerous adapters between different nominal widths as well as T-pieces and crossovers that fitted exactly and were quick to install.









FASERFIX®SUPER KS FASERFIX®SUPER

TAILOR-MADE SOLUTIONS.

EXAMPLES OF TAILOR-MADE SOLUTIONS FOR INDIVIDUAL CUSTOMER REQUIREMENTS.

"BISCHOFSHEIM, AM WINGERTSPFAD": EMBANKMENT CHANNEL WITH CLOSING GRATING

At the new construction site "Am Wingertspfad" in Bischofsheim open FASERFIX SUPER channels were used in different nominal widths to drain the precipitation water to the central percolation area. The whole drainage network consists of FASERFIX SUPER channels in different nominal widths and types. At the end of the drainage lines the water emerges into the open through a channel that has been truncated to suit the existing slope of the embankment as specified by the customer. An exit grating was fitted to safeguard the system.

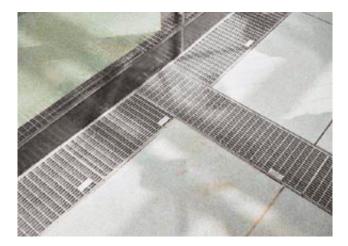






"DRESDEN, WIENER PLATZ"

The "Wiener Platz" is the central traffic hub in Dresden. The different transport modes, such as railway, cars and buses, tramway, bicycles and wheelchairs are interlinked on different levels. For a visually appealing streetscape design of surfaces and façades, the FASERFIX SUPER channels and FASERFIX POINT yard gullies were fitted with custom-fabricated stainless steel gratings. A special request from the client and architects was the narrow mesh size of the gratings that provides better safety for pedestrians, cyclists and wheelchair users and prevents the ingress of coarser dirt items into the drainage system. The effect adds to the harmonious overall design that does justice to the outstanding architecture.





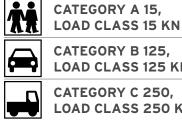


THE COMPLETE DRAINAGE SYSTEM - EXTREMELY ROBUST. FOR EXPOSURE TO HEAVY ROAD TRAFFIC IN PUBLIC AREAS AND INDUSTRY.

HIGH-STRENGTH SIDEWALLS OWING TO FIBRE-REINFORCED CONCRETE

The standard DIN EN 1433 stipulates sufficient sidewall strength for transport and installation, i.e. without the bracing effect from the gratings that are installed subsequently. The U shape of our drainage channels has passed the test of time over many years. FASERFIX SUPER channels are manufactured from fibre-reinforced concrete. The sidewalls are uniformly slender and very robust - even for short non-standard lengths. FASERFIX SUPER KS and FASERFIX SUPER channels can be installed without the gratings being fitted.

FASERFIX SUPER KS and FASERFIX SUPER channels meet the requirements of DIN EN 1433 and are suitable for the following load categories:



CATEGORY B 125, LOAD CLASS 125 KN CATEGORY C 250. LOAD CLASS 250 KN

CATEGORY D 400, LOAD CLASS 400 KN



CATEGORY E 600, LOAD CLASS 600 KN

CATEGORY F 900, LOAD CLASS 900 KN

SAFETY IN PEDESTRIAN ZONES FASERFIX SUPER channels with their great choice of gratings are also used in pedestrian zones, on market squares and other public areas. To provide greater safety for pedestrians, the gratings with narrow slot

sizes were developed.



Δ

Fibre-reinforced concrete channels to DIN V 19580/ EN 1433, CE-compliant, with safety joint, steel frame and SIDE-LOCK boltless locking mechanism as well as tongue and groove for exact installation



 Trash box with drainage connection options on 3 sides, integrated KG sleeve DN 100 and removable mud bucket

3

End caps with and without outlets



Numerous grating options, e.g. GUGI-Ductile iron mesh gratings

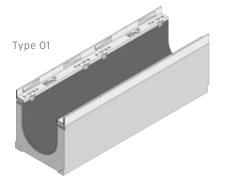
GRATING OPTIONS

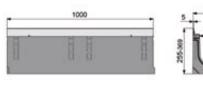
FASERFIX® SUPER KS CHANNELS AND FASERFIX® SUPER CHANNELS

	iron	Ductile mesh ting*		le iron ting*	Mesh grating*		Slotted grating*		Perforated grating*		Closed covers*		Longitudinal grating*	
Load categories			STITLE .											
	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER
A 15							100						100	
B 125					100									
C 250			100, 150, 200	300	100, 150, 200	300	100		100		100			
D 400			100, 150, 200	300, 400										
E 600	100, 150, 200	150, 200, 300, 400	100, 150	150, 200, 500	100, 150, 200						100	300, 400		
F 900	100		100, 150	150, 200, 300, 400										

* sizes are nominal widths

FASERFIX®SUPER 150 - Channel lower parts

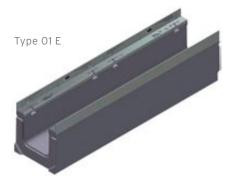


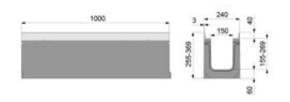




	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Type 01	1000	240	255	212	78,0	2000
Туре 010	1000	240	309	289	89,0	2042
Туре 020	1000	240	369	383	103,0	2044
Туре 0105	500	240	255	212	39,0	2049

FASERFIX®SUPER 150 - Channel lower parts angular





	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Туре 01 Е	1000	240	255	223	80,0	2105
Туре 010 Е	1000	240	309	301	93,5	2106
Туре 020 Е	1000	240	369	387	105,0	2107

FASERFIX®SUPER 150 - Gratings, class E 600



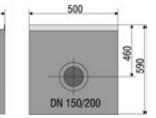
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating, MW 20/30, black	500	227	40	628	11,5	2068
Ductile iron grating closed, black	500	227	40	0	10,7	2262

FASERFIX®SUPER 150 - Gratings, class F 900

FASERFIX®SUPER 150 - Accessories









PVC - connection DN 150





Foul air trap DN 150

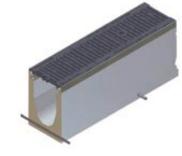
	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with galvanised bucket	500	240	590	93,0	2052
Foul air trap DN 150	-	-	-	2,0	960
PVC - connection DN 150	_	-	-	0,5	906



Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**



End cap closed, galvanised, Type O1



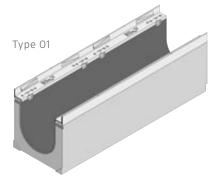
Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)

	Length mm	Width mm	Height mm	Weight kg	Article No.
End cap closed, galvanised, Type 01	-	240	255	0,9	2081
End cap closed, galvanised, Type 010	-	240	309	1,1	2082
End cap closed, galvanised, Type 020	-	240	369	1,3	2083
End cap with horizontal UPVC-outlet DN 150, galvanised, Typ 01	-	240	255	1,5	2091
End cap with horizontal UPVC-outlet DN 150, galvanised, Type 010	-	240	309	1,5	2092
End cap with horizontal UPVC-outlet DN 150, galvanised, Type 020	-	240	369	1,7	2093
Cutting to length of NW 150	-	-	-	-	991
Mitre cuts of NW 150 (two cuts per connection)	-	-	-	-	996
Drilling of connecting holes DN 150	-	-	-	-	973
Inserting of PVC union connectors DN 150*	-	-	-	-	983
Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**	-	_	-	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	-	_	-	3,1	10025
Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)	-	-	-	-	703
Steelbars for fixing system (2 pieces per running metre)	-	-	-	-	704

* We can additionally insert SML- or PE-HD outlets on appointment ** Consumption for channely type 020: approx. 94 ml per joint.

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER 200 - Channel lower parts

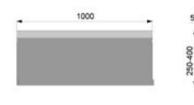


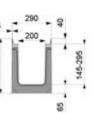


	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Туре 01	1000	290	305	362	103,0	3000
Туре 010	1000	290	350	447	114,0	3042
Туре 020	1000	290	400	552	125,0	3044
Туре 0105	500	290	305	362	51,5	3049

FASERFIX®SUPER 200 - Channel lower parts angular







	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Type 01 E	1000	290	305	386	104,5	3105
Туре 010 Е	1000	290	350	473	113,5	3106
Туре 020 Е	1000	290	400	568	124,5	3107

FASERFIX®SUPER 200 - Gratings, class E 600

GUGI-Ductile iron mesh grating MW 20/30, black			uctile iron ack	grating closed,		
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating MW 20/30, black	500	277	40	818	13,8	3068
Ductile iron grating closed, black	500	277	40	0	13,4	3262

FASERFIX®SUPER 200 - Gratings, class F 900

Ductile iron grating SW 170/20, black						
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 170/20, black	500	277	40	833	13,6	3061

FASERFIX®SUPER 200 - Accessories



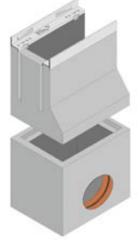


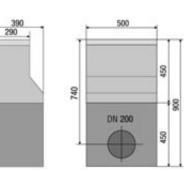




Foul air trap DN 150









PVC - connection DN 150

Trash box, 2-pieces with galvanised bucket

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with galvanised bucket	500	290	582	80,0	3052
Trash box, 2-pieces with galvanised bucket	500	290	900	190,5	3054
Foul air trap DN 150	-	-	-	2,0	960



Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**



End cap closed, galvanised, Type O1



Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)

	Length mm	Width mm	Height mm	Weight kg	Article No.
PVC - connection DN 150	-	-	_	0,5	906
End cap closed, galvanised, Type 01	-	290	305	1,3	3081
End cap closed, galvanised, Type 010	-	290	350	1,6	3082
End cap closed, galvanised, Type 020	-	290	400	1,8	3083
End cap with horizontal UPVC-outlet DN 150, galvanised, Type 01	-	290	305	1,6	3091
End cap with horizontal UPVC-outlet DN 150, galvanised, Type 020	-	290	400	2,0	3093
Cutting to length of NW 200	-	-	-	-	992
Mitre cuts of NW 200 (two cuts per connection)	-	-	-	-	997
Drilling of connecting holes DN 200	-	-	-	-	974
Inserting of PVC union connectors DN 200*	-	-	-	-	984
Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**	-	-	-	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	-	-	-	3,1	10025
Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)	-	-	-	-	703
Steelbars for fixing system (2 pieces per running metre)	-	-	-	-	704

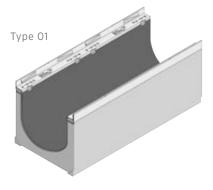
 \ast We can additionally insert SML- or PE-HD outlets on appointment

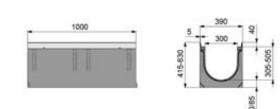
** Consumption for channely type 020: approx. 105 ml per joint.

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®POINT

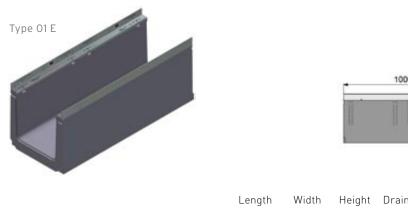
FASERFIX®SUPER 300 - Channel lower parts

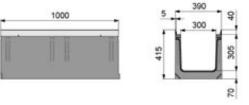




	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Туре 01	1000	390	415	803	157,0	4000
Туре 020	1000	390	630	1202	260,0	4044
Туре 0105	500	390	415	803	75,0	4001

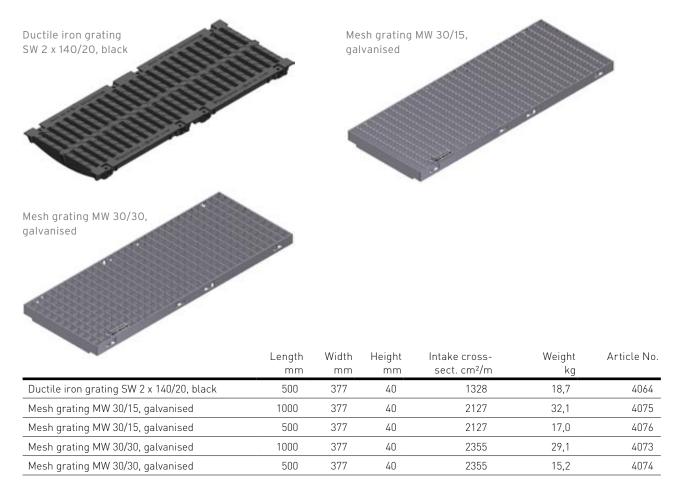
FASERFIX®SUPER 300 - Channel lower parts angular





	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Type 01 E	1000	390	415	900	150,0	4105

FASERFIX®SUPER 300 - Gratings, class C 250



FASERFIX®SUPER 300 - Gratings, class D 400*

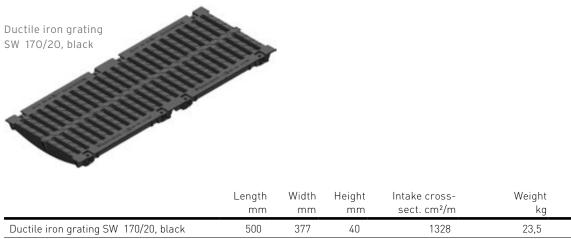
Ductile iron grating SW 2 x 140/20, black						
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 2 x 140/20, black	500	377	40	1328	20,6	4063

* Not for use across the carriageway of highways or motorways in moving traffic.

FASERFIX®SUPER 300 - Gratings, class E 600

GUGI-Ductile iron mesh gratIng MW 20/30, black			Ductil black	e iron grating closed,		-
					2.2	
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh gratlng MW 20/30, black	500	377	40	1071	21,8	4068
Ductile iron grating closed, black	500	377	40	0	21,5	4262

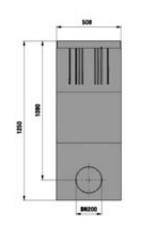
FASERFIX®SUPER 300 - Gratings, class F 900

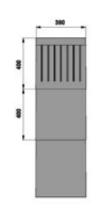


	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 170/20, black	500	377	40	1328	23,5	4061

FASERFIX®SUPER 300 - Accessories









End cap closed, galvanised, type 01

Trash box with galvanised bucket, two parts with ductile iron grating SW 2 x 140/20, black, class F 900

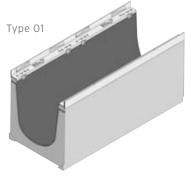
	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with galvanised bucket, two parts with duc- tile iron grating SW 2 x 140/20, black, class F 900	510	390	850	207,0	4052
Intersection units, two parts with ductile iron grating, closed, black, class E 600	510	390	850	207,0	4352
Extension part	510	390	400	82,0	4054
PVC-Connection DN 200	-	-	-	0,8	907
End cap closed, galvanised, type 01	-	390	415	2,5	4081
End cap closed, galvanised, type 020	-	390	630	3,8	4083
End cap with horizontal UPVC-outlet DN 200, galva- nised, type 01	-	390	415	3,0	4085
End cap with horizontal UPVC-outlet DN 200, galva- nised, type 020	_	390	630	4,5	4088
Cutting to length of NW 300	-	-	-	-	993
Mitre cuts of NW 300 (two cuts per connection)	-	-	-	-	998
Drilling of connecting holes DN 200	-	-	-	-	974
Inserting of PVC union connectors DN 200*	-	-	-	-	984
Sealing material Masterflex 700 FR Gun Grade, cart- ridge 450 ml**	_	-	_	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	_	-	_	3,1	10025
Fixing-system EP, empty conduit in the channel bot- tom, (2 pieces per running metre)	_	-	-	-	703
Steelbars for fixing system (2 pieces per running metre)	_	-	-	-	704

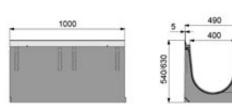
** Consumption for channely type 020: approx. 169 ml per joint.

* We can additionally insert SML- or PE-HD outlets on appointment

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®SUPER 400 - Channel lower parts

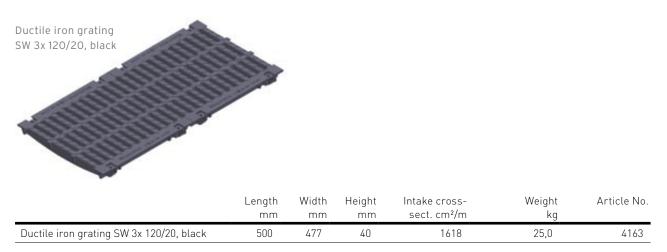






	Length	Width	Height	Drainage cross-	Weight	Article No.
	mm	mm	mm	sect. cm²	kg	
Туре 01	1000	490	540	1398	248,0	4111
Туре 01Н	1000	490	630	1758	268,0	4116

FASERFIX®SUPER 400 - Gratings, class D 400*



* Not for use across the carriageway of highways or motorways in moving traffic.

FASERFIX®SUPER 400 - Gratings, class E 600

GUGI-Ductile iron mesh grating MW 20/30, black		•	Ductile ir black	on solid cover,		
	Length mm	Width	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating MW 20/30, black	500	477	40	1634	30,0	4168
Ductile iron solid cover, black	500	477	40	0	32,0	4362

FASERFIX®SUPER 400 - Gratings, class F 900

Ductile iron grating SW 3 x 120/20, black						
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 3 x 120/20, black	500	477	40	1618	38,7	4161

FASERFIX®SUPER 400 - Accessories



Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**



End cap closed, galvanised, Type O1



Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)

	Length mm	Width mm	Height mm	Weight kg	Article No.
End cap closed, galvanised, Type 01	-	490	540	4,8	4091
End cap closed, galvanised, Type 01H	-	490	630	5,1	4092
End cap with horizontal UPVC-outlet DN 200, gal- vanised, Type 01	-	490	540	5,6	4093
End cap with horizontal UPVC-outlet DN 200, gal- vanised, Typ 01H	-	490	630	5,9	4097
Cutting to length of NW 400	-	-	-	-	985
Mitre cuts of NW 400 (Two parts per connection)	-	-	-	_	949
Drilling of connecting holes DN 200	-	-	-	-	974
Inserting of PVC union connectors DN 200*	-	-	-	_	984
Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**	-	-	-	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	-	-	-	3,1	10025
Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)	_	-	-	_	703
Steelbars for fixing system (2 pieces per running metre)		_	_		704

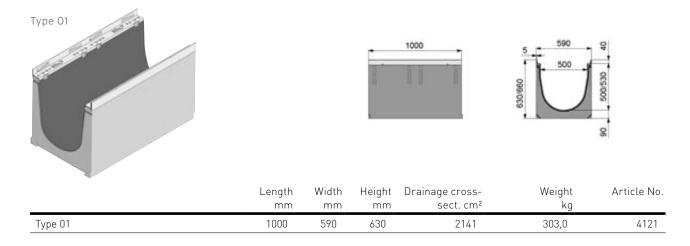
* We can additionally insert SML- or PE-HD outlets on appointment

** Consumption for channely type 020: approx. 172 ml per joint.

The quality of the stainless steel material is according CNS 1.4301.



FASERFIX®SUPER 500 - Channel lower parts



FASERFIX®SUPER 500 - Gratings, class E 600

Ductile iron grating SW 3 x 150/20, black						
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 3 x 150/20, black	500	577	40	2061	45,0	4182

FASERFIX®SUPER 500 - Accessories



Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**



End cap closed, galvanised, Type O1



Fixing-system EP, empty conduit in the channel bottom, (2 pieces per running metre)

	Length mm	Width mm	Height mm	Weight kg	Article No.
End cap closed, galvanised, Type 01	-	590	630	7,5	4096
End cap with horizontal UOVC-outlet DN 200, galva- nised, Type 01	_	590	630	8,0	4095
Cutting to length of NW 500	-	-	-	-	989
Mitre cuts of NW 500 (two cuts per connection)	-	-	-	-	959
Drilling of connecting holes DN 200	-	-	-	-	974
Inserting of PVC union connectors DN 200*	-	-	-	-	984
Sealing material Masterflex 700 FR Gun Grade, cart- ridge 450 ml**	-	-	-	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	_	-	_	3,1	10025
Fixing-system EP, empty conduit in the channel bot- tom, (2 pieces per running metre)	_	_	-	_	703
Steelbars for fixing system (2 pieces per running metre)	_	-	-	-	704

 \ast We can additionally insert SML- or PE-HD outlets on appointment

** Consumption for channely type 020: approx. 178 ml per joint.

The quality of the stainless steel material is according CNS 1.4301.

FASERFIX®BIG reliable drainage - easy to install.

FOR MAXIMUM LOADS IN HEAVY ROAD TRAFFIC



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AT A GLANCE

- Bespoke channels with very high lateral strength
- ✓ For service under very heavy loads
- 🗹 Easy to seal

test.

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- General building regulation approval
- Complies with DIN EN 1433
- Anti-slip face protection in galvanised steel

FASERFIX®BIG

RELIABLE DRAINAGE - EASY TO INSTALL. FOR MAXIMUM LOADS IN HEAVY ROAD TRAFFIC

REQUIREMENTS

Depending on the location, drainage channels can be exposed to strong dynamic forces and extreme loads under heavy road traffic conditions. In these situations the strength of the surface and sidewalls of the channel construction are severely tested. Depending on the type of duty (e.g. filling stations and tank installations) it is mandatory to prevent fuel and oils from entering into the ground. Various regulations have to be complied with such as 'Quality guideline for concrete paving slabs at filling stations' (GBT), LAWA/KIWA guidelines, § 19 of the Water Resources Act (WHG), DIN 1045 and DIN EN 1433.



FASERFIX BIG channels have the benefit of a general building control approval issued by the DIBt.

SOLUTION

FASERFIX BIG channels are heavy-duty channels made from fibre-reinforced concrete or concrete C 35/45 XF4. The edge protection and grating support surfaces consist of corrosion-protected steel angle housings or stainless steel angle housings. All channel base segments feature safety joints which can be sealed by the contractor against liquid ingress using MASTERFLEX 700 FR gun grade polysulphide sealer. The official material testing station at Karlsruhe University has tested the channel base segments in accordance with the 'Quality guideline for concrete paving slabs in filling stations' (GBT) and for compliance with DIN 1045. We are happy to send you copies of the test certificates of tests for exposure to petrol, diesel or kerosene.

Where it is imperative to install a system that is perfectly sealed against the ingress of liquids, it is possible to form a sealing joint along the top edge of the channels in accordance with IVD Technical Note No. 6. FASERFIX BIG channels with concrete casing offer very high lateral strength; structural breaking load evidence is available in accordance with SLW 60 of DIN 1072. These channels do not require costly works during installation, such as additional in-situ concrete casings. Where the application requires mandatory or desired integrity against liquids, the long channel lengths of up to 4 m result in considerable savings since significantly less joints have to be sealed. FASERFIX BIG SL channels are made from fibrereinforced concrete and include a wear-resistant galvanised steel face protection of the concrete casing.





FASERFIX BIG channels for maximum load applications.



Long channel segments mean fast and efficient installation.

DEUTSCHES I	NSTITUT FÜR BAUTECHNIK Install des öffentlichen Rechts	
	10829 Borin, 7, August 2006 Kolomansinaba 301 Telefon, 1030 2013/03/23 Telefon, 030 21730/330 Gesch2: 164.1744-2904	
Allgemeir	ne bauaufsichtliche Zulassung	
Zulassungsnummer:	2.74.4-68	
Antragsteller:	Hauraton GmbH & Co. KG Werkstraße 13+14 76437 Rastatt	
Zulassungsgegenstand:	Rinnensystem "Fasefix-Super-Rinnen" für die Verwendung in LAU- Anlagen	
Geltungsdauer bis:	31. August 2011	
Der oben genannte Zulass Diese allgemeine bauaufsi	an nugami ungsgegensland wird hiermit allgemein bauaufsichtlich zugelassen, ichtliche Zulassung umfasst zehn Seiten und sieben Anlagen.	
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APPLICATION AREAS

For all areas with heavy road traffic, such as ports, storage yards and production facilities, container stations and airports. Filling stations and tank installations where channels sealed against fuel ingress are required in accordance with the 'Quality guideline for concrete paving slabs at filling stations' (GBT) and the LAWA-/KIWA guidelines. For the drainage of polluted wastewater and for collecting and retaining extinguishing water.

TEST CERTIFICATES

The official material testing station at Karlsruhe University has successfully tested the FASERFIX BIG channels in accordance with the 'Quality guideline for concrete paving slabs in filling stations' (GBT). These tests are designed to measure the penetration depth of diesel, petrol and kerosene. We are happy to send you copies of the test certificates.

FASERFIX BIG channels have the benefit of the general building control approval by the DIBt: FASERFIX BIG SL channels, approval no. Z-74.4-67 FASERFIX BIG BL channels, approval no. Z-74.4-66

They are particularly suited for locations with frequent and heavy load exposure and feature good-looking slipresistant surfaces of the concrete casing. The gratings for the FASERFIX BIG channels are made from ductile iron and are attached to the channel angle housing using the SIDE-LOCK boltless locking system for safe fixing. The classification and testing meets the requirements of DIN EN 1433. In case of special requirements regarding resistance to chemicals, FASERFIX BIG channels can also be coated with approved coating systems; to be carried out by the contractor. We would be happy to let you have a list of contractors with approval in accordance with § 19 WHG.

FASERFIX®BIG

RELIABLE DRAINAGE - EASY TO INSTALL. FOR MAXIMUM LOADS IN HEAVY ROAD TRAFFIC

FASERFIX BIG channels meet the requirements of DIN EN 1433 and are suitable for the following load categories:

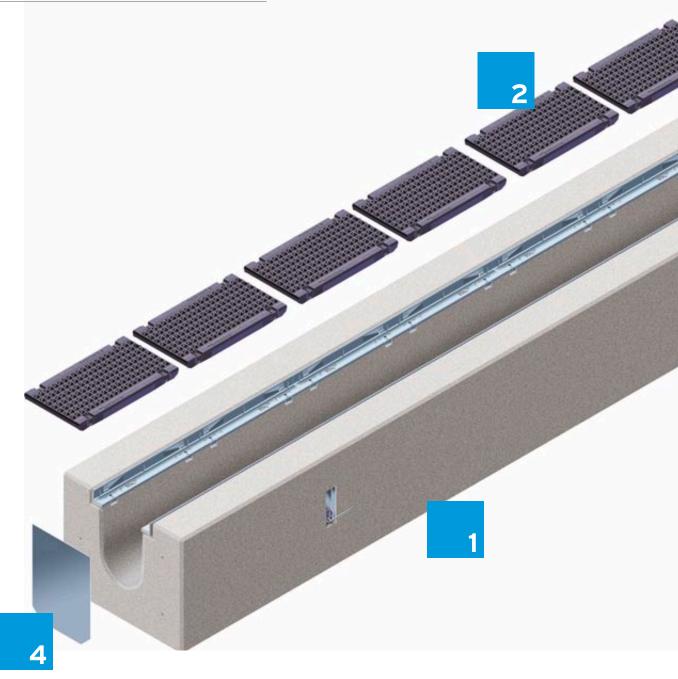


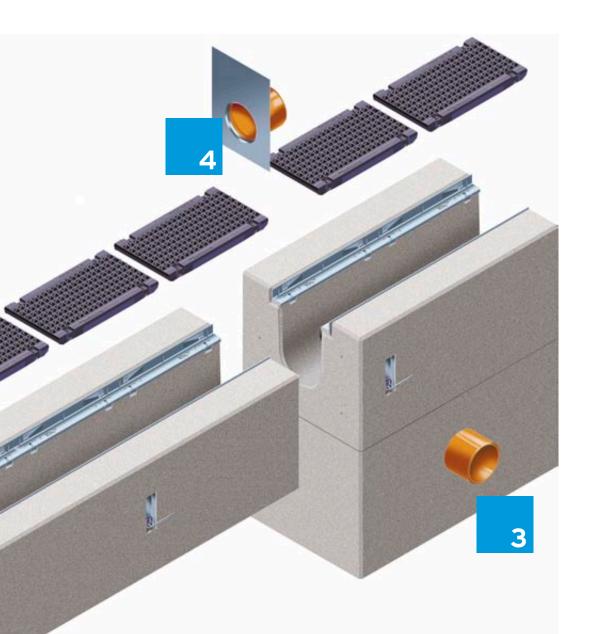
CATEGORY D 400, LOAD CLASS 400 KN



CATEGORY E 600, LOAD CLASS 600 KN

CATEGORY F 900, LOAD CLASS 900 KN







Bespoke channels in concrete C 35/45 or fibre-reinforced concrete to DIN EN 1433, CE-compliant, with safety joint, steel frame and SIDE-LOCK boltless locking system, long segments allow efficient installation

2

Numerous grating options, e.g. GUGI-Ductile iron mesh gratings



 Inlet bucket with integrated KG sleeve in DN 150 and galvanised steel bucket

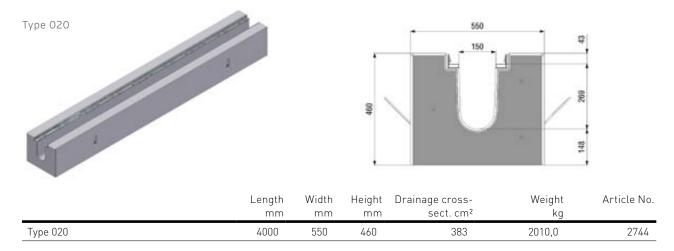
End caps with and without



outlets

RECYRFIX®HICAP

FASERFIX®BIG BL 150 - Channel lower parts



FASERFIX®BIG BL 150 - Gratings, class E 600

GUGI-Ductile iron mesh grating, MW 20/30, black						
	2					
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating, MW 20/30, black	500	227	40	628	11,5	2068

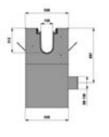
FASERFIX®BIG BL 150 - Gratings, class F 900

Ductile iron grating SW 150/20, black						
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 150/20, black	500	227	40	710	9,8	2061

FASERFIX®BIG BL 150 - Accessories









Trash box element with KG-sleeve DN 150 and galvanised bucket

Foul air trap DN 150



Foul air trap DN 100, outside



UPVC-outlet DN 100



PVC - connection DN 150

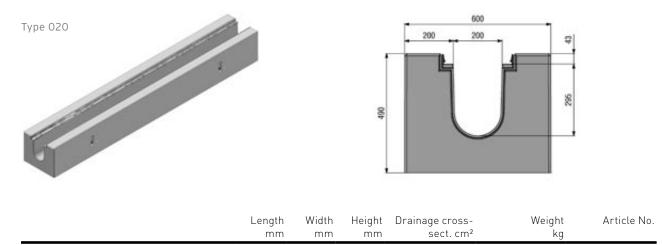
	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box element with KG-sleeve DN 150 and galva- nised bucket	1000	550	1010	680,0	2755
Foul air trap DN 150	-	-	-	2,0	960
Foul air trap DN 100, outside	-	-	-	0,4	961
UPVC-outlet DN 100	-	-	-	0,2	903
PVC - connection DN 150	_	-	-	0,5	906
End cap closed, galvanised, Type 020	-	240	369	1,3	2083
End cap with horizontal UPVC-outlet DN 150, galva- nised, Type 020	_	240	369	1,7	2093
Cutting to length	-	-	-	-	891
Mitre cuts (2 pieces per connection are necessary)	-	-	-	-	892
Drilling of connection holes	-	-	-	-	893
Inserting of PVC union connectors	-	-	-	-	894
Sealing material Masterflex 700 FR Gun Grade, cart- ridge 450 ml**	-	-	-	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	_	-	-	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	-	-	-	3,1	10025

** Consumption of sealing material: approx. 117 ml per joint.

Туре 020

FASERFIX®BIG BL 200

FASERFIX®BIG BL 200 - Channel lower parts



600

490

552

2148,0

3744

4000

FASERFIX®BIG BL 200 - Gratings, class E 600

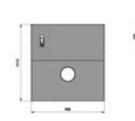
GUGI-Ductile iron mesh grating MW 20/30, black						
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating MW 20/30, black	500	277	40	818	13,8	3068

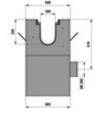
FASERFIX®BIG BL 200 - Gratings, class F 900

	mm	mm	mm	3566. 6111 /111		
	Length	Width	Height	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 170/20, black						

FASERFIX®BIG BL 200 - Accessories









Foul air trap DN 150



DN 200 and galvanised bucket

Foul air trap DN 100, outside



UPVC-outlet DN 100



PVC - connection DN 150

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box element with KG-muffle DN 200 and galva- nised bucket	1000	600	1013	680,0	3755
Foul air trap DN 150	-	-	-	2,0	960
Foul air trap DN 100, outside	-	-	-	0,4	961
UPVC-outlet DN 100	-	-	-	0,2	903
PVC - connection DN 150	-	-	-	0,5	906
End cap closed, galvanised, Type 020	-	290	400	1,8	3083
End cap with horizontal UPVC-outlet DN 150, galva- nised, Type 020	-	290	400	2,0	3093
Cutting to length	-	-	-	-	891
Mitre cuts (2 pieces per connection are necessary)	-	-	-	-	892
Drilling of connection holes	-	-	-	-	893
Inserting of PVC union connectors	-	-	-	-	894
Sealing material Masterflex 700 FR Gun Grade, cart- ridge 450 ml**	-	-	-	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	-	-	-	3,1	10025

** Consumption of sealing material: approx. 125 ml per joint.

FASERFIX®BIG reliable drainage - easy to install.

FOR MAXIMUM LOADS IN HEAVY ROAD TRAFFIC



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AT A GLANCE

- Bespoke channels with very high lateral strength
- ✓ For service under very heavy loads
- 🗹 Easy to seal

test.

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- General building regulation approval
- Complies with DIN EN 1433
- Anti-slip face protection in galvanised steel

FASERFIX®BIG

RELIABLE DRAINAGE - EASY TO INSTALL. FOR MAXIMUM LOADS IN HEAVY ROAD TRAFFIC

REQUIREMENTS

Depending on the location, drainage channels can be exposed to strong dynamic forces and extreme loads under heavy road traffic conditions. In these situations the strength of the surface and sidewalls of the channel construction are severely tested. Depending on the type of duty (e.g. filling stations and tank installations) it is mandatory to prevent fuel and oils from entering into the ground. Various regulations have to be complied with such as 'Quality guideline for concrete paving slabs at filling stations' (GBT), LAWA/KIWA guidelines, § 19 of the Water Resources Act (WHG), DIN 1045 and DIN EN 1433.



FASERFIX BIG channels have the benefit of a general building control approval issued by the DIBt.

SOLUTION

FASERFIX BIG channels are heavy-duty channels made from fibre-reinforced concrete or concrete C 35/45 XF4. The edge protection and grating support surfaces consist of corrosion-protected steel angle housings or stainless steel angle housings. All channel base segments feature safety joints which can be sealed by the contractor against liquid ingress using MASTERFLEX 700 FR gun grade polysulphide sealer. The official material testing station at Karlsruhe University has tested the channel base segments in accordance with the 'Quality guideline for concrete paving slabs in filling stations' (GBT) and for compliance with DIN 1045. We are happy to send you copies of the test certificates of tests for exposure to petrol, diesel or kerosene.

Where it is imperative to install a system that is perfectly sealed against the ingress of liquids, it is possible to form a sealing joint along the top edge of the channels in accordance with IVD Technical Note No. 6. FASERFIX BIG channels with concrete casing offer very high lateral strength; structural breaking load evidence is available in accordance with SLW 60 of DIN 1072. These channels do not require costly works during installation, such as additional in-situ concrete casings. Where the application requires mandatory or desired integrity against liquids, the long channel lengths of up to 4 m result in considerable savings since significantly less joints have to be sealed. FASERFIX BIG SL channels are made from fibrereinforced concrete and include a wear-resistant galvanised steel face protection of the concrete casing.





FASERFIX BIG channels for maximum load applications.



Long channel segments mean fast and efficient installation.

DEUTSCHES I	NSTITUT FÜR BAUTECHNIK Install des öffentlichen Rechts	
	10829 Borin, 7, August 2006 Kolomansinaba 301 Telefon, 1030 2013/03/23 Telefon, 030 21730/330 Gesch2: 164.1744-2904	
Allgemeir	ne bauaufsichtliche Zulassung	
Zulassungsnummer:	2.74.4-68	
Antragsteller:	Hauraton GmbH & Co. KG Werkstraße 13+14 76437 Rastatt	
Zulassungsgegenstand:	Rinnensystem "Fasefix-Super-Rinnen" für die Verwendung in LAU- Anlagen	
Geltungsdauer bis:	31. August 2011	
Der oben genannte Zulass Diese allgemeine bauaufsi	an nug-man wird hiermit allgemein bauaufsichtlich zugelassen. ungsgegensland wird hiermit allgemein baile und sieben Anlagen. ichtliche Zulassung umfasst zehn Seiten und sieben Anlagen.	
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APPLICATION AREAS

For all areas with heavy road traffic, such as ports, storage yards and production facilities, container stations and airports. Filling stations and tank installations where channels sealed against fuel ingress are required in accordance with the 'Quality guideline for concrete paving slabs at filling stations' (GBT) and the LAWA-/KIWA guidelines. For the drainage of polluted wastewater and for collecting and retaining extinguishing water.

TEST CERTIFICATES

The official material testing station at Karlsruhe University has successfully tested the FASERFIX BIG channels in accordance with the 'Quality guideline for concrete paving slabs in filling stations' (GBT). These tests are designed to measure the penetration depth of diesel, petrol and kerosene. We are happy to send you copies of the test certificates.

FASERFIX BIG channels have the benefit of the general building control approval by the DIBt: FASERFIX BIG SL channels, approval no. Z-74.4-67 FASERFIX BIG BL channels, approval no. Z-74.4-66

They are particularly suited for locations with frequent and heavy load exposure and feature good-looking slipresistant surfaces of the concrete casing. The gratings for the FASERFIX BIG channels are made from ductile iron and are attached to the channel angle housing using the SIDE-LOCK boltless locking system for safe fixing. The classification and testing meets the requirements of DIN EN 1433. In case of special requirements regarding resistance to chemicals, FASERFIX BIG channels can also be coated with approved coating systems; to be carried out by the contractor. We would be happy to let you have a list of contractors with approval in accordance with § 19 WHG.

FASERFIX®BIG

RELIABLE DRAINAGE - EASY TO INSTALL. FOR MAXIMUM LOADS IN HEAVY ROAD TRAFFIC

FASERFIX BIG channels meet the requirements of DIN EN 1433 and are suitable for the following load categories:

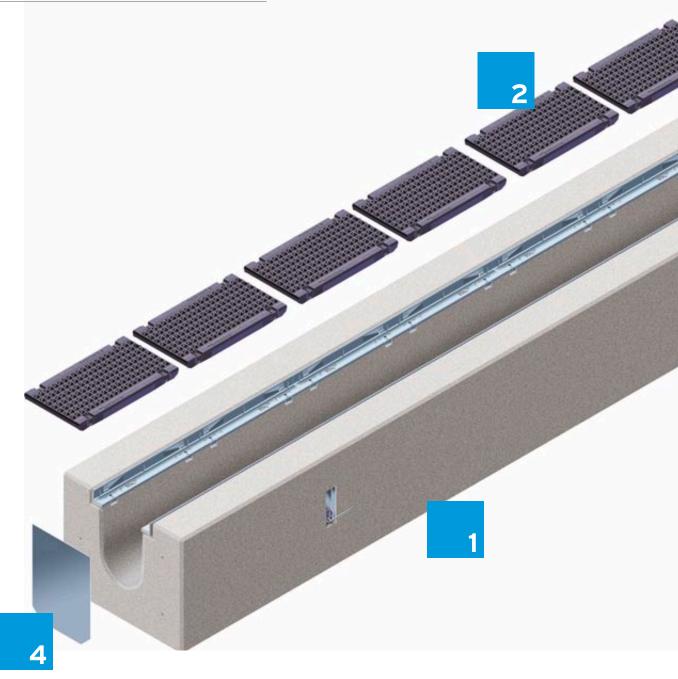


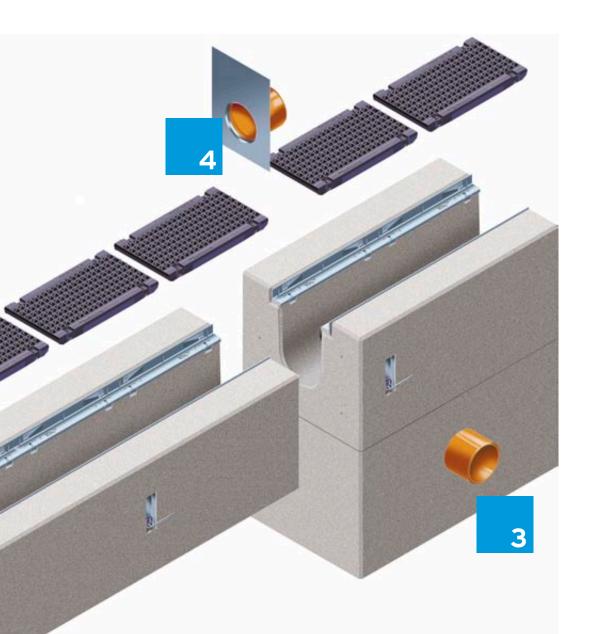
CATEGORY D 400, LOAD CLASS 400 KN



CATEGORY E 600, LOAD CLASS 600 KN

CATEGORY F 900, LOAD CLASS 900 KN







Bespoke channels in concrete C 35/45 or fibre-reinforced concrete to DIN EN 1433, CE-compliant, with safety joint, steel frame and SIDE-LOCK boltless locking system, long segments allow efficient installation

2

Numerous grating options, e.g. GUGI-Ductile iron mesh gratings



 Inlet bucket with integrated KG sleeve in DN 150 and galvanised steel bucket

End caps with and without

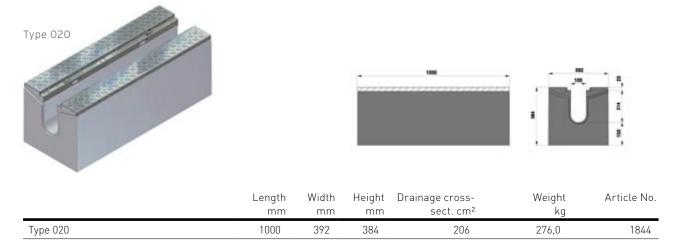


outlets

RECYRFIX®HICAP

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FASERFIX®BIG SL 100 - Channel lower parts



FASERFIX®BIG SL 100 - Gratings, class E 600

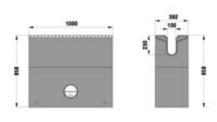
GUGI-Ductile iron mesh grating MW 20/30, black	and the second					
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating MW 20/30, black	500	149	20	426	4,0	8079

FASERFIX®BIG SL 100 - Gratings, class F 900

Ductile iron grating SW 100/14, black						
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 100/14, black	500	149	20	454	4,5	8061

FASERFIX®BIG SL 100 - Accessories





Trash box element with KG-pipe DN 150 and galvanised mud bucket





Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**

Foul air trap DN 100, outside

	Length mm	Width mm	Height mm	Weight kg	Article No. galva- nised	Article No. stain- less steel
Trash box element with KG-pipe DN 150 and gal- vanised mud bucket	1000	392	930	656,0	1850	-
Foul air trap DN 100, outside	-	-	-	0,4	961	-
End cap closed, Type 020	-	160	274	0,7	8083	8183
End cap with horizontal UPVC-outlet DN 100, Type 020	-	160	274	0,8	8089	8187
Cutting to length	-	-	-	-	891	-
Mitre cuts (2 pieces per connection are necessary)	-	-	-	-	892	-
Drilling of connection holes	-	-	-	-	893	-
Inserting of PVC union connectors	-	-	-	-	894	-
Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**	-	-	-	1,0	19000	-
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000	-
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950	-
Toolkit for sealing material Masterflex 700 FR Gun Grade	_	-	-	3,1	10025	-

** Consumption of sealing material: approx. 117 ml per joint.

2	7	S
6		2

FASERFIX®BIG SL 150 - Channel lower parts



FASERFIX®BIG SL 150 - Gratings, class E 600

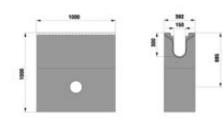
GUGI-Ductile iron mesh grating, MW 20/30, black						
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating, MW 20/30, black	500	227	40	628	11,5	2068

FASERFIX®BIG SL 150 - Gratings, class F 900

Ductile iron grating SW 150/20, black						
	Length	Width	Height	Intake cross-	Weight	Article No.
	mm	mm	mm	sect. cm²/m	kg	
Ductile iron grating SW 150/20, black	500	227	40	710	9,8	2061

FASERFIX®BIG SL 150 - Accessories





Trash box element with KG-pipe DN 150 and galvanised mud bucket





Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**

Foul air trap DN 150

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box element with KG-pipe DN 150 and galva- nised mud bucket	1000	392	1000	692,0	2950
Foul air trap DN 150	-	-	-	2,0	960
End cap closed, galvanised, Type 020	-	240	369	1,3	2083
End cap with horizontal UPVC-outlet DN 150, galva- nised, Type 020	_	240	369	1,7	2093
Cutting to length	-	-	-	-	891
Mitre cuts (2 pieces per connection are necessary)	-	-	-	-	892
Drilling of connection holes	-	-	-	-	893
Inserting of PVC union connectors	-	-	-	-	894
Sealing material Masterflex 700 FR Gun Grade, cart- ridge 450 ml**	-	-	_	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	_	-	-	3,1	10025

** Consumption of sealing material: approx. 112 ml per joint.

FASERFIX®BIG SL 200 - Channel lower parts



FASERFIX®BIG SL 200 - Gratings, class E 600

GUGI-Ductile iron mesh grating MW 20/30, black						
	Length	Width	Height	Intake cross-	Weight	Article No.
	mm	mm	mm	sect. cm²/m	kg	, a dece rite.
GUGI-Ductile iron mesh grating MW 20/30, black	500	277	40	818	13,8	3068

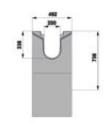
FASERFIX®BIG SL 200 - Gratings, class F 900

Ductile iron grating SW 170/20, black						
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 170/20, black	500	277	40	833	13,6	3061

FASERFIX®BIG SL 200 - Accessories







Trash box element with KG-pipe DN 200 and galvanised mud bucket





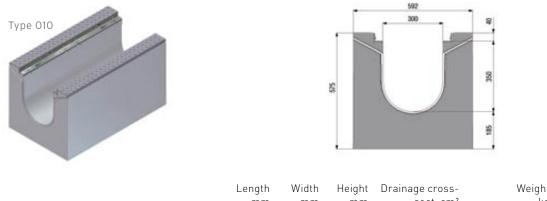
Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**

Foul air trap DN 150

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box element with KG-pipe DN 200 and galva- nised mud bucket	1000	492	1020	945,0	3950
Foul air trap DN 150	-	-	-	2,0	960
End cap closed, galvanised, Type 020	-	290	400	1,8	3083
End cap with horizontal UPVC-outlet DN 150, galva- nised, Type 020	-	290	400	2,0	3093
Cutting to length	-	-	-	-	891
Mitre cuts (2 pieces per connection are necessary)	-	-	-	-	892
Drilling of connection holes	-	-	-	-	893
Inserting of PVC union connectors	-	-	-	-	894
Sealing material Masterflex 700 FR Gun Grade, cart- ridge 450 ml**	-	-	-	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	_	-	-	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	_	-	-	3,1	10025

** Consumption of sealing material: approx. 129 ml per joint.

FASERFIX®BIG SL 300 - Channel lower parts



	Length	Width	Height	Drainage cross-	Weight	Article No.
	mm	mm	mm	sect. cm²	kg	
Туре 010	1000	592	575	947	575,0	4942

FASERFIX®BIG SL 300 - Gratings, class E 600

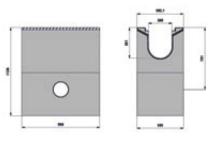


FASERFIX®BIG SL 300 - Gratings, class F 900

Ductile iron grating SW 170/20, black	Þ					
	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Ductile iron grating SW 170/20, black	500	377	40	1328	23,5	4061

FASERFIX®BIG SL 300 - Accessories





Trash box element with KG-pipe DN 200 and galvanised mud bucket



Foul air trap DN 150



Sealing material Masterflex 700 FR Gun Grade, cartridge 450 ml**

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box element with KG-pipe DN 200 and galva- nised mud bucket	1000	592	1125	1095,0	4950
Foul air trap DN 150	-	-	-	2,0	960
End cap closed, galvanised, type 020	-	390	630	3,8	4083
End cap with horizontal UPVC-outlet DN 200, galva- nised, type 020	-	390	630	4,5	4088
Cutting to length	-	-	-	-	891
Mitre cuts (2 pieces per connection are necessary)	-	-	-	-	892
Drilling of connection holes	-	-	-	-	893
Inserting of PVC union connectors	-	-	-	-	894
Sealing material Masterflex 700 FR Gun Grade, cart- ridge 450 ml**	_	-	_	1,0	19000
Primer Masterflex 700 A SP, capacity 1000 ml	-	-	-	1,0	20000
Primer Masterflex 700 FE (steel), capacity 1000 ml	-	-	-	1,1	19950
Toolkit for sealing material Masterflex 700 FR Gun Grade	_	_	_	3,1	10025

** Consumption of sealing material: approx. 155 ml per joint.

RECYFIX®SUPER KS RECYFIX®SUPER

DRAINS COMPLETELY - LIGHT AND ROBUST. HIGH STABILITY FOR PUBLIC AND INDUSTRIAL AREAS.





AT A GLANCE

- Light and robust
- Quick and easy to install
- ✓ Up to loading capacity F 900, certified according EN 1433
- ☑ With SIDE-LOCK boltless locking system

RECYFIX®SUPER KS RECYFIX®SUPER

DRAINS COMPLETELY - LIGHT AND ROBUST.

HIGH STABILITY FOR PUBLIC AND INDUSTRIAL AREAS.



REQUIREMENTS

Reliable drainage and disposal of surface water is now mandatory in many areas. It is therefore under evertougher regulations that our RECYFIX®SUPER and RECYFIX®SUPER KS drainage system ranges have to operate. The ranges have applications in many different areas: in industrial and trading estates, exhibition centres, and train stations; in car parks and in town centres. Apart from the technical criteria that needs to be fulfilled, the channels must fit in aesthetically within their environment. Therefore flexibility and ability to adapt must be key aspects of the products.

SOLUTIONS

The channels in the RECYFIX®SUPER and RECYFIX®SUPER KS range provide economical and reliable solutions in areas with heavy traffic, up to load class F 900. They are made out of PE-PP and this gives them a definite edge in terms of weight - and therefore also in terms of ease of installation. Lateral stability and increased resistance to torsion are provided by galvanised or stainless steel angle housings equipped with the SIDE-LOCK boltless locking system. The locking system gives the many variants of gratings which are available added stability and structure, vertically and horizontally. The channels in the RECYFIX[®]SUPER and RECYFIX[®]SUPER KS range are resistant to freezing and to the salts used to de-ice roads and car parks and can be made watertight on-site using a supple product. The channels are certified according EN 1433 and carry the CE quality mark.

Noisy Le Roi, France: the train station car park

APPLICATIONS

Industrial and trading estates, exhibition centres, train stations, car parks, urban centres, market squares, public squares, etc.



Public squares



Airports



Miscellaneous car parks



Entrances to courtyards and garages

RECYFIX®SUPER KS RECYFIX®SUPER

DRAINS COMPLETELY - LIGHT AND ROBUST. HIGH STABILITY FOR PUBLIC AND INDUSTRIAL AREAS.

RECYFIX[®]SUPER KS and RECYFIX[®]SUPER channels are certified according EN 1433 and can be installed in areas with the following loading capacities:

ii	CATEGORY A 15, LOAD CLASS 15 KN
	CATEGORY B 125, LOAD CLASS 125 KN
	CATEGORY C 250, LOAD CLASS 250 KN
	CATEGORY D 400, LOAD CLASS 400 KN
₽₽	CATEGORY E 600, LOAD CLASS 600 KN
	CATEGORY F 900,

LOAD CLASS 900 KN

GENERAL INSTRUCTIONS FOR THE USE OF THE CHANNELS

- The channel installation advices provided in the "Laying Instructions" catalogue are for information purposes only. Their provision does not mean that project engineers can dispense with efforts to find installation solutions suitable for sites and the specific constraints encountered on the ground.
- Correct flow directions must be complied with (see arrows on the outsides of channels).
- □ Surface paving must be 3 mm to 5 mm higher than the level of the channels' upper edges.
- Expansion joints must be correctly positioned, in order to completely counteract horizontal expansion forces.
- Insert the channel gratings to ensure that the channels are rigid before pouring second-stage concrete.
- Detailed installation advices can be downloaded from our website, www.hauraton.com.
 These instructions are updated on a regular basis.



GRATINGS FOR RECYFIX®SUPER KS CHANNELS AND RECYFIX®SUPER CHANNELS

	iron	Ductile mesh ting*		ctile atings*	Mesh g	sh gratings* Reinforced slotted gratings		Perforated gratings*		Closed gratings*		Longitudinal gratings		
Load class	aller a	ALL PROVIDENCE OF THE PARTY OF		ille.										
	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER	SUPER KS	SUPER
A 15							100						100	
B 125					100									
C 250			100, 150, 200	300	100, 150, 200		100		100		100			
D 400	150		100, 150, 200	300	150									
E 600	100, 150, 200	300	100, 150, 200	300	100, 150, 200						100			
F 900				300										

* The measurements listed are internal widths.

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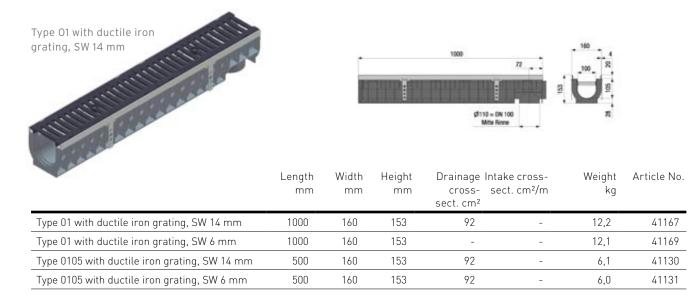
Numerous grating options, for exemple GUGI-Ductile iron mesh gratings

SAFETY GUARANTEED

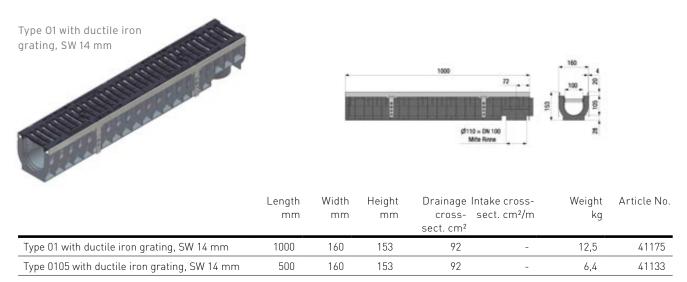
The RECYFIX[®]SUPER KS channels and the vast choice of gratings to go with them are also employed in pedestrian areas, market squares and other pedestrian areas. Ductile iron gratings with narrow openings have been specially designed to ensure the safety of pedestrians and as well as wheel chairs.



RECYFIX®SUPER KS 100 - Combi article, class C 250



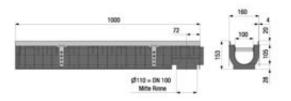
RECYFIX®SUPER KS 100 - Combi article, class D 400



RECYFIX®SUPER KS 100 - Combi article, class E 600

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~	in the second		
100			

Type 01 with ductile iron grating, SW 14 mm



Length mm	Width mm	Height mm	Drainage cross- sect. cm² sec	Intake cross- ct. cm²/m	Weight kg	Article No.
1000	160	153	92	-	15,1	41180
1000	160	153	92	-	13,5	41177
1000	160	153	92	-	13,7	41179
500	160	153	92	-	7,6	41135
500	160	153	92	-	6,8	41136
500	160	153	92	-	6,8	41137
	1000 1000 1000 500 500	mm mm 1000 160 1000 160 1000 160 500 160 500 160	mm mm mm 1000 160 153 1000 160 153 1000 160 153 500 160 153 500 160 153	mm mm cross-sect. cm² sect. 1000 160 153 92 1000 160 153 92 1000 160 153 92 1000 160 153 92 500 160 153 92 500 160 153 92	mm mm cross- sect. cm² sect. cm²/m 1000 160 153 92 - 1000 160 153 92 - 1000 160 153 92 - 1000 160 153 92 - 500 160 153 92 - 500 160 153 92 -	mm mm cross- sect. cm² sect. cm²/m kg 1000 160 153 92 - 15,1 1000 160 153 92 - 13,5 1000 160 153 92 - 13,5 1000 160 153 92 - 13,7 500 160 153 92 - 7,6 500 160 153 92 - 6,8

RECYFIX[®]SUPER KS 100 - Accessories



Trash box with ductile iron grating, SW 14 mm, class C 250



End cap, galvanised



Foul air trap DN 100, inside

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with ductile iron grating, SW 14 mm, class C 250	500	160	438	8,5	41140
Trash box with ductile iron grating, SW 6 mm, class C 250	500	160	438	8,4	41141
Trash box with ductile iron grating, SW 14 mm, class D 400	500	160	438	8,8	41143
Trash box with GUGI-ductile iron mesh grating, MW 20x30, class E 600	500	160	438	10,0	41145
Trash box with ductile iron grating, SW 14 mm, class E 600	500	160	438	9,2	41146
Trash box with ductile iron grating, SW 6 mm, class E 600	500	160	438	9,2	41147
Foul air trap DN 100, inside	-	-	-	0,2	40290
Foul air trap, vertical, DN 100	-	-	-	0,5	40295
End cap, galvanised	-	160	160	0,3	41181
End cap, galvanised, with outlet DN 70	-	160	202	0,6	41186
End cap, stainless steel	-	160	160	0,3	41581
End cap, stainless steel, with outlet DN 70	-	160	202	0,6	41586
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891

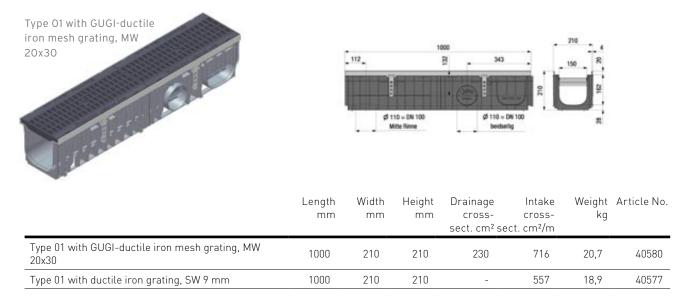
RECYFIX®SUPER KS 150 - Combi article, class C 250

Type 01 with ductile iron grating, SW 14 mm			12.	1000 B	343	210 150 R	
All and a state of the		ļ	¢ 110 - Mitte R		\$ 110 = 0% 100 beduetig		
	Length mm	Width mm	Height mm		Intake cross- sect. cm²/m	Weight kg	Article No.
Type 01 with ductile iron grating, SW 14 mm	1000	210	210	230	631	15,9	40567

RECYFIX®SUPER KS 150 - Combi article, class D 400

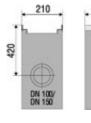
Type 01 with ductile iron grating, SW 14 mm		þ	12.	1000 B	ск	210	
CHER .			¢i 110 = Mitte R		g5 110 = DN 100 bedaetig		
	Length mm	Width mm	Height mm		Intake cross- sect. cm²/m	Weight kg	Article No.
Type 01 with ductile iron grating, SW 14 mm	1000	210	210	230	629	15,9	40575

RECYFIX®SUPER KS 150 - Combi article, class E 600



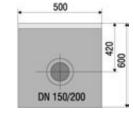
RECYFIX[®]SUPER KS 150 - Accessories







Trash box with galvanis bucket

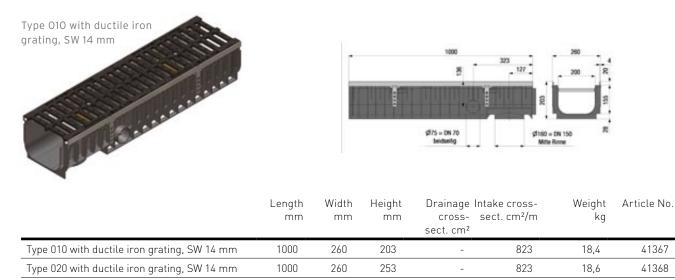




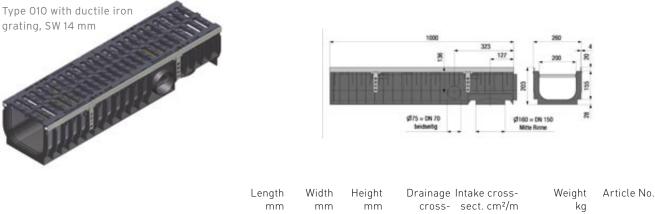
Foul air trap DN 150

	Length mm	Width mm	Height mm	Weight kg	Article No. galva- nised	Article No. stain- less steel
Trash box with galvanised bucket	500	210	600	67,5	11052	11552
Foul air trap DN 150	-	-	-	2,0	960	
Foul air trap, vertical, DN 100	-	-	-	0,5	40295	-
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890	-
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891	-

RECYFIX®SUPER KS 200 - Combi article, class C 250



RECYFIX®SUPER KS 200 - Combi article, class D 400



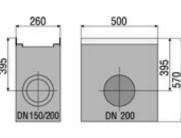
				sect. cm²		0	
Type 010 with ductile iron grating, SW 14 mm	1000	260	203	292	823	20,4	41375
Type 020 with ductile iron grating, SW 14 mm	1000	260	253	395	823	20,6	41376

RECYFIX®SUPER KS 200 - Combi article, class E 600

Type 010 with GUGI-ductile iron mesh grating, MW 20x30			giya bed	1000 3223 127 01 70 setig		
	Length mm	Width mm	Height mm	Drainage Intake cross cross- sect.cm²/i sect.cm²	-	Article No.
Type 010 with GUGI-ductile iron mesh grating, MW 20x30	1000	260	203	- 886	26,0	41380
Type 020 with GUGI-ductile iron mesh grating, MW 20x30	1000	260	253	- 886	26,2	41381

RECYFIX[®]SUPER KS 200 - Accessories





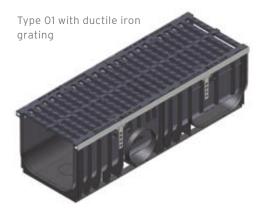
Trash box with galvanised bucket

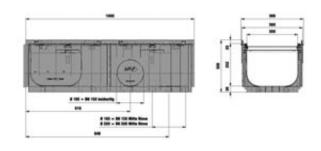


End cap for type 010, galvanised

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with galvanised bucket	500	260	570	75,5	12052
Trash box with galvanised bucket	500	260	570	75,5	12552
End cap for type 010, galvanised	-	260	320	0,3	41382
End cap for type 010, galvanised, with horizontal UPVC outlet DN 100	-	260	320	0,6	41387
End cap for type 010, stainless steel	-	260	320	0,3	41782
End cap for type 010, stainless steel, with horizontal UPVC outlet DN 100	-	260	320	0,6	41787
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	_	-	_	0,6	6890
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891

RECYFIX®SUPER KS 300 - Combi article, class D 400

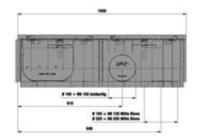




	Length mm	Width mm	Height mm	Drainage Intake cross- cross- sect. cm²/m sect. cm²	Weight kg	Article No.
Type 01 with ductile iron grating	1000	360	308	- 1325	31,6	41875

RECYFIX®SUPER KS 300 - Combi article, class E 600







	Length mm	Width mm	Height mm	Drainage Intake cross- cross- sect. cm²/m sect. cm²	Weight kg	Article No.
Type 01 with ductile iron grating	1000	360	308	- 1196	37,6	41880

RECYFIX[®]SUPER KS 300 - Accessories

	Length mm	Width mm	Height mm	Weight kg	Article No.
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891

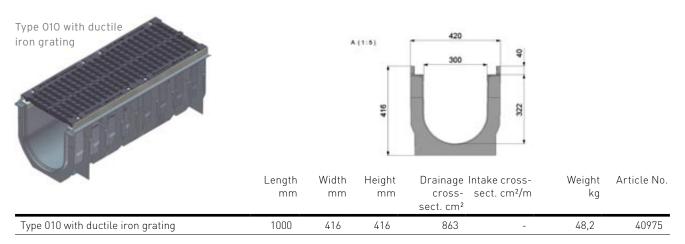
RECYFIX®SUPER 300

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RECYFIX®SUPER 300 - Combi article, class C 250

Type 010 with ductile iron grating and fixing			A (1:5) 99	420 300 S		
	Length mm	Width mm	Height mm	Drainage Intake cross- cross- sect. cm²/m sect. cm²	Weight kg	Article No.
Type 010 with ductile iron grating and fixing	1000	416	416	863 -	56,0	40970

RECYFIX®SUPER 300 - Combi article, class D 400



RECYFIX®SUPER 300 - Combi article, class E 600

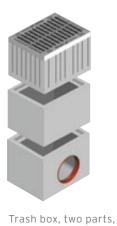
Type 010 with ductile iron grating				995		416 382 9 300 22	
	Length mm	Width mm	Height mm	cross- sect. cm²	Intake cross- sect. cm²/m	Weight kg	Article No.
Type 010 with ductile iron grating	1000	416	416	863	-	63,8	40960

RECYFIX®SUPER 300

RECYFIX®SUPER 300 - Combi article, class F 900

Type 010 with ductile iron grating		F.L.	598 1	The second secon	411 383 90 90	9	
•	Length mm	Width mm	Height mm	Drainage cross- sect. cm² se	Intake cross- ect. cm²/m	Weight kg	Article No.
Type 010 with ductile iron grating	1000	416	416	863	-	58,4	40980

RECYFIX[®]SUPER 300 - Accessories



without grating



Foul air trap DN 150



End cap type 010, galvanised

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box, two parts, without grating	510	390	850	183,5	4050
Extension part	510	390	400	82,0	4054
Foul air trap DN 150	-	-	-	2,0	960
End cap type 010, galvanised	-	420	420	2,8	40981
End cap type 010, galvanised, with outlet	-	420	420	3,2	40991
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891

STABLE DRAINAGE. WITH A PROTECTIVE EDGE AND ATTRACTIVE DESIGN.





AT A GLANCE

- ☑ Loading category D 400, certified to EN 1433
- ☑ Locaring Internal width 100mm to 300mm
- ☑ Light and robust
- Easy and quick to install

STABLE DRAINAGE. WITH PROTECTIVE EDGE AND ATTRACTIVE DESIGN.

INNOVATIVE AND ENVIRONMENTALLY FRIENDLY

RECYFIX[®]PLUS X channels are made from PE-PP and are fully recyclable. Because they are light, RECYFIX[®]PLUS X channels are easy to transport and to install. The system meets the most severe requirements in terms of robustness and functionality. RECYFIX[®]PLUS X channels have been developed for use in areas with higher traffic flows. The channels edges are protected by steel angle housing. RECYFIX[®]PLUS X provides you with a complete range including all the accessories you need.

RECYFIX[®]PLUS X channels were developed in partnership with a renowned recycled plastic research institute. Using computer-based simulations, very robust structures reinforced by means of ribs were designed - they are much lighter than traditional channels made from materials such as rock and stone and are also very functional and robust.

RECYCLED PE-PP MATERIAL

RECYFIX[®]PLUS X channels are made from recycled PE-PP materials. What sets them apart from other channels is their high chemical resistance to freezing, to the salts that are used to de-ice roads and to UV rays. They are also environmentally neutral and impermeable.



Polygonal installation



Installation on terrasses

FASERFIX®TRAFFIC

REQUIREMENTS

The choice of a drainage system is determined by various criteria - i.e. constraints, be they technical, to do with transport or budget-related, which themselves are determined by what kind of environment the system is intended for. Whether the system is being installed in an area with paving stones, in a patio, in a public park, or in car parks, pedestrian zones, or in streets with vehicular traffic, the water-drainage systems used must satisfy all of the demands placed upon them, both by pedestrian and vehicular traffic. Surface water must be drained very effectively but must also be carried away quickly using reliable means.

SOLUTIONS

The channels in the RECYFIX®PLUS X range have galvanised steel angle housings, a channel body made of PE-PP and are certified according EN 1433 for loadclass D 400. The PE-PP channels in the RECYFIX®PLUS X range are light but unbreakable and are supplied in nominal widths from 100 mm up to 300 mm. They are highly resistant against freezing and road salt resistant as well as being easy to install linearly on the construction site.

APPLICATIONS

The channels can be used in all areas with paving stones, for patio areas, in public parks, in pedestrian zones, and also in car parks and in industrial and trading estates, etc.



In areas with vehicular traffic, such as streets and car parks



In industrial settings

STABLE DRAINAGE. WITH A PROTECTIVE EDGE AND ATTRACTIVE DESIGN.

RECYFIX®PLUS X channels are certified according EN 1433 and can be installed in areas in which the following loading capacities can be expected:



CATEGORY D 400, LOAD CLASS 400 KN

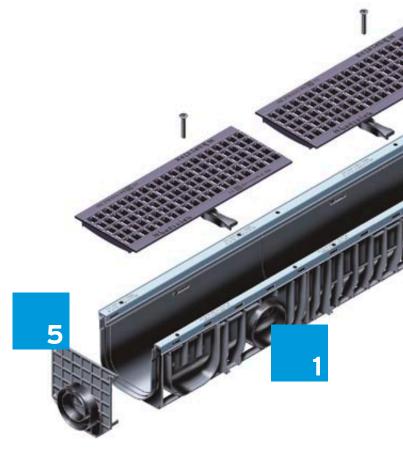
GENERAL INSTRUCTIONS FOR THE USE OF THE CHANNELS:

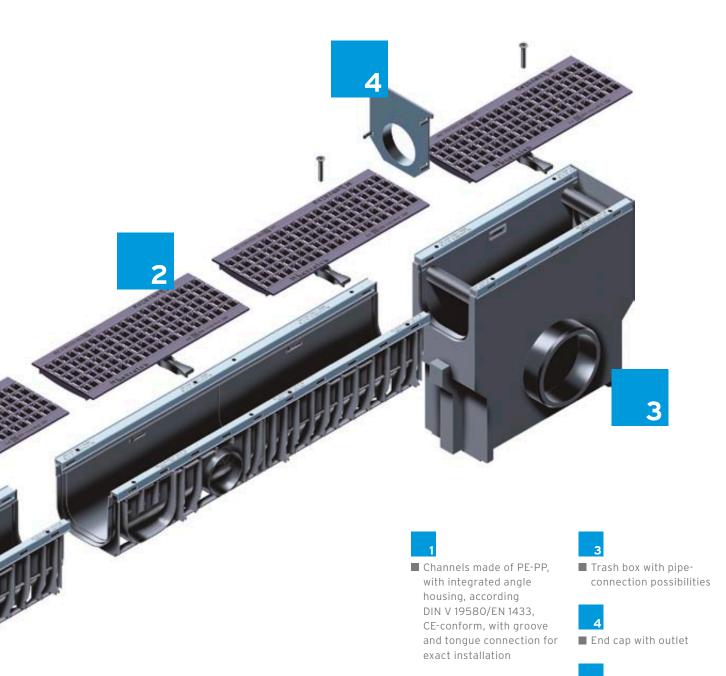
- The channels installation advices provided in the "Installation advices manual" are for information purposes only. Their provision does not mean that project engineers can dispense with efforts to find laying solutions suitable for sites and the specific constraints encountered on the ground.
- Correct flow directions must be complied with (see arrows on the outsides of channels).
- □ Surface paving must be 3 mm to 5 mm higher than the level of the channel top level.
- Expansion joints must be correctly positioned, in order to completely counteract horizontal expansion forces.
- Insert the gratings of the channels to ensure that the channels are stable before pouring second-stage concrete:
- Detailed installation advices can be downloaded from our website www.hauraton.com. These instructions are updated on a regular basis.

GRATING FOR RECYFIX®PLUS X CHANNELS

	GUGI-Ductile iron mesh gratings*	Ductile iron gratings*
Load class		
A 15		
B 125		
C 250		
D 400	100, 150, 200, 300	300

* The measurements listed are internal widths.





NORM EN 1433

All RECYFIX®PLUS X channels comply with European standard EN 1433 by fulfilling its requirements and they all carry the CE quality mark.

A FULL RANGE

RECYFIX[®]PLUS X channels are available in different heights and widths. They can be connected to other accessories in the channels bottom, the side-walls or from the front side. You have a choice between several ductile iron gratings depending on the type of paving used and the load class. Also available in the range are trash boxes with mud bucket, end caps and end caps with vertical outlet.



5

End cap

Parking

2

Numerous grating options, for exemple GUGI-Ductile iron mesh gratings FASERFIX®SUPER KS

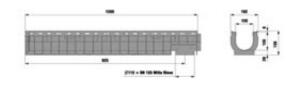
FASERFIX®BIG

FASERFIX®TRAFFIC

RECYRFIX®SUPER KS

RECYFIX®PLUS X 100 - combi article, class D 400





	Length mm	Width mm	Height mm	Drainage In cross- s sect. cm²	take cross- sect. cm²/m	Weight kg	Article No.
Type 01 with GUGI-ductile iron mesh grating, cl. D 400, locked, 1 m	1000	160	139	93	440	10,5	42070
Type 010 with GUGI-ductile iron mesh grating, cl. D 400, locked, 1 m	1000	160	187	142	440	11,2	42075
Type 0105 with GUGI-ductile iron mesh grating, cl. D 400, locked, 0,5 m	500	160	139	93	440	5,2	42077
Type 01005 with GUGI-ductile iron mesh gra- ting, cl. D 400, locked, 0,5 m	500	160	187	142	440	5,6	42078

RECYFIX®PLUS X 100 - Accessories



Trash box with GUGI-ductile iron mesh grating, cl. D 400, locked, 0,5 m



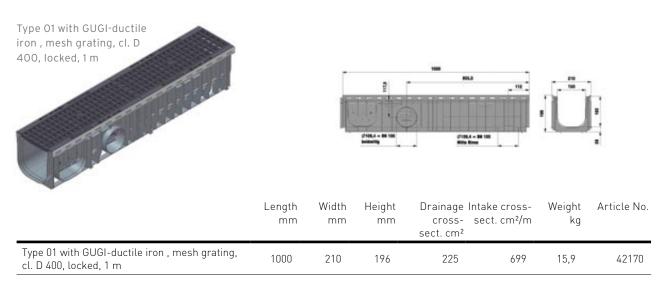
Foul air trap DN 100, outside



Foul air trap DN 100, inside

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with GUGI-ductile iron mesh grating, cl. D 400, locked, 0,5 m	500	158	424	7,3	42079
Foul air trap DN 100, outside	-	-	-	0,4	961
Foul air trap DN 100, inside	-	-	-	0,2	40290
Foul air trap, vertical, DN 100	-	-	-	0,5	40295

RECYFIX®PLUS X 150 - combi article, class D 400



RECYFIX®PLUS X 150 - Accessories



Trash box with GUGI-ductile iron mesh grating, cl. D 400, locked, 0,5 m



Foul air trap DN 100, outside



Foul air trap DN 150

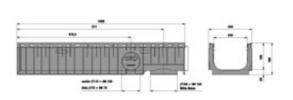


Foul air trap DN 100, inside

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with GUGI-ductile iron mesh grating, cl. D 400, locked, 0,5 m	500	298	504	19,2	42179
Foul air trap DN 100, outside	-	-	-	0,4	961
Foul air trap DN 150	-	-	-	2,0	960
Foul air trap DN 100, inside	-	-	-	0,2	40290
Foul air trap, vertical, DN 100	-	-	-	0,5	40295
End cap galvanised for RECYFIX 150 trash box	-	-	-	0,3	40159
End cap combined made of PE-PP with outlet DN 70/100, Type 01	-	210	202	0,1	40191

RECYFIX®PLUS X 200 - combi article, class D 400





	Length mm	Width mm	Height mm	0	Intake cross- sect. cm²/m	Weight kg	Article No.
Type 010 with GUGI-ductile iron mesh grating, cl. D 400, locked, 1 m	1000	260	188	290	878	20,9	42275
Type 020 with GUGI-ductile iron mesh grating, cl. D 400, locked, 1 m	160	1000	238	366	878	21,0	42280

RECYFIX®PLUS X 200 - Accessories



Trash box with GUGI-ductile iron mesh grating, cl. D 400, locked, 0,5 m

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with GUGI-ductile iron mesh grating, cl. D 400, locked, 0,5 m	500	344	738	33,7	42253
Foul air trap, vertical, DN 100	-	-	-	0,5	40295
End cap galvanised for RECYFIX 200 trash box	-	-	-	0,6	40659
End cap combined made of PE-PP with outlet DN 70, Type 010	-	258	185	0,2	40692

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RECYFIX®PLUS X 300

RECYFIX®PLUS X 300 - combi article, class D 400



				sect. cm²			
Type 01 with ductile iron grating, cl. D 400 and locking device	1000	350	294	730	1256	32,0	42375

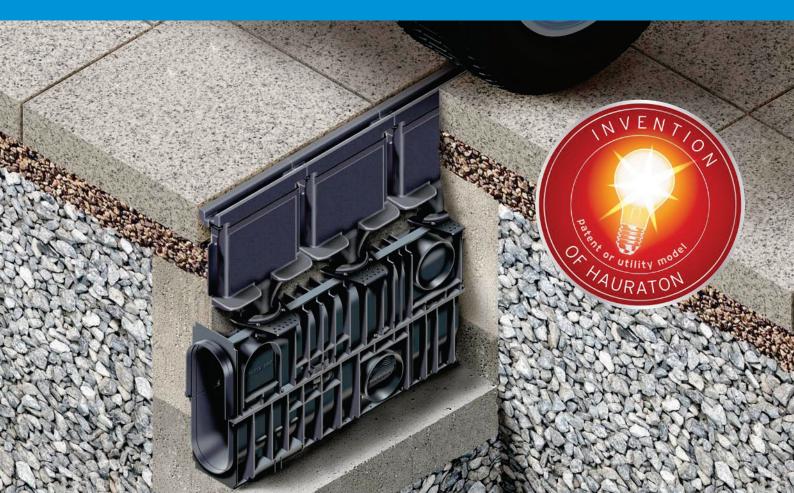


RECYFIX®HICAP®

EFFECTIVELY DRAINED - BUILT MODULAR.

DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.





AQUA

RECYFIX®HICAP®

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.

SPECIAL STANDARDS IN TIMES OF CLIMATE CHANGE

Due to the climate change the German Meteorological Service (DWD) has redefines heavy precipitations to be expected. Torrential rain lasting more than 5 minutes, which statistically is to be expected once in 5 years, must now be assessed to have 10 % more content than before. Large areas with a high traffic volume therefore require a particularly effective drainage solution.

At the same time the channel run must offer a large backwater reserve to meet community standards following measures for flood safety. In barrier-free urban and residential areas steps and kerbs, which would serve as a barrier for flood zones, are omitted. For these applications the drainage system must provide sufficient safety.



THE NEW SOLUTION: RECYFIX® HICAP®

RECYFIX HICAP has been developed for special drainage functions. The channel system is used for draining large areas and simultaneously serves as a retention space. The RECYFIX HICAP drainage system holds large volumes of surface water, guides it over large distances and at one point directs it to the main channel. The system offers very high hydraulic capacity for increasing drainage averages. This creates a large backwater reserve. At the same time it offers the option to restrict the water output to the main water channel and to slowly release the collected water into the sewage network.

ADVANTAGES

for planners

- Drainage and retention in one assembly
- □ Large selection of nominal sizes from 100 to 680 mm
- □ suitable for all load classes and all popular pavements
- □ fewer trash boxes and outlets
- □ allows projects to be designed with a uniform look

for contractors

- Quick and easy installation
- □ break-proof components
- □ no separate covers
- □ less sewer connection work

for construction companies

- □ Safety through large hydraulic capacity
- □ Easy to service
- □ Continuously uniform look

Hauraton



GRATINGS MADE OF STURDY SPHEROID DUCTILE IRON

The integrated gratings are made of high-quality spheroid ductile iron GGG-50. Different grating designs are available for different application areas. In roadways and pedestrian areas cross- or lengthwise webs are used. In industrial areas the "open slot" option with a particularly large intake-cross section can be used. The ductile iron GGG-50 surface driven on is extremely sturdy and unbreakable. It is designed for particularly high strain caused e.g. by heavy goods vehicles or airplanes.

The material spheroid ductile iron GGG-50 features 23 times more tensile strength and 9 times more compressive strength than polymer concrete. In regard to load and resistance to wear these physical characteristics clearly speak in favour of the REFYFIX HICAP channels.





PE-PP CHANNEL BODIES

The bodies of the RECYFIX HICAP channels are made of eco-friendly PE-PP recycled plastic. They are very lightweight and due to their low weight easy to install. The elements can be installed without installation aids.

They are non-breakable and easily connected with groove and tongue joints. Special connectors ensure the accurately fit transition between differently sized channels.

AT A GLANCE:

- Drainage and retention in one assembly
- ✓ consistently optic
- easy installation
- ✓ for highest loading capacities up to F 900

RECYFIX[®]HICAP[®]

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.

RECYFIX HICAP channels have been tested to comply with DIN EN 1433 and are suitable for installation in loading classes A 15 to F 900







CATEGORY D 400 CATEGORY E 600 CATEGORY F 900

8

TYPES OF SLOTS

RECYFIX[®]HICAP[®] F





Traffic





Pedestrian

Inlet adaptors made of PE-PP

Industrial

Traffic

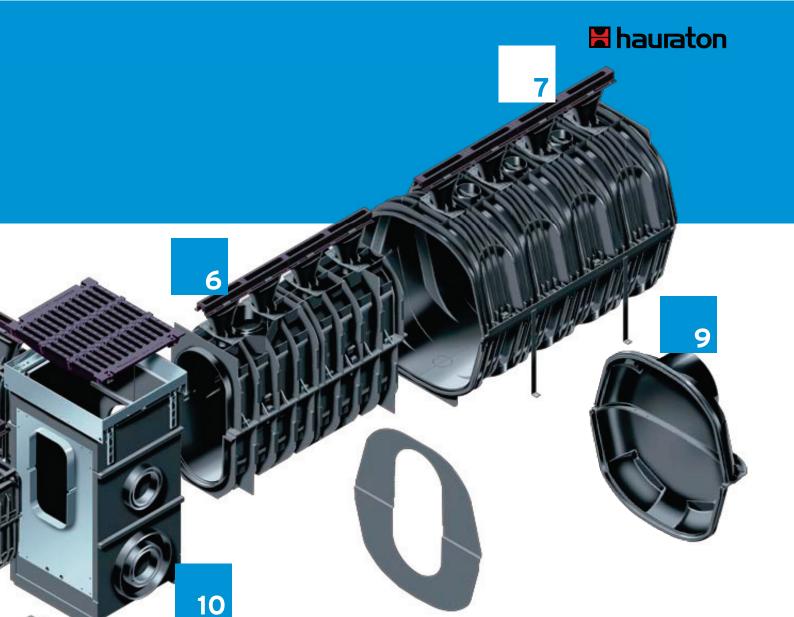
Pedestrian *

* available from 2010





Industrial *



1

RECYFIX HICAP Channel 100 made of PE-PP channel body and inlet adaptor with integrated ductile iron grating

2

With the connecting plate the next nominal size is connected

3

RECYFIX HICAP Channel 150 made of PE-PP channel body and inlet adaptor with integrated ductile iron grating

4

T-connection for connection of leaks

5

RECYFIX HICAP Channel 200 made of PE-PP channel body and inlet adaptor with integrated ductile iron grating

6

RECYFIX HICAP Channel 300 made of PE-PP channel body and inlet adaptor with integrated ductile iron grating

7

RECYFIX HICAP Channel 680 made of PE-PP channel body and inlet adaptor with integrated ductile iron grating

8

End cap 100

9

End cap 680 with pipe connection possibility

10

Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multi part constructions are possible.

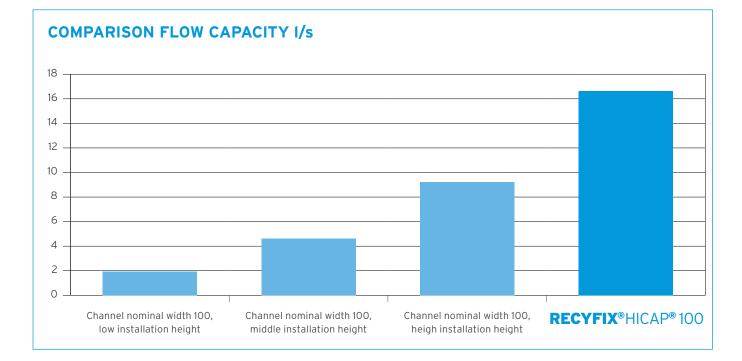
AQUA

RECYFIX®HICAP®

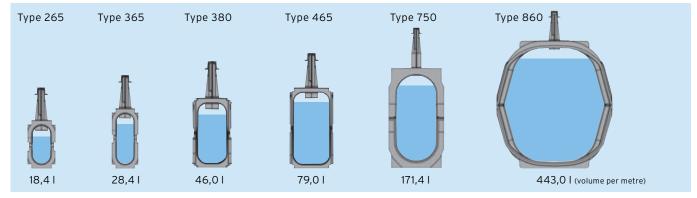
EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.

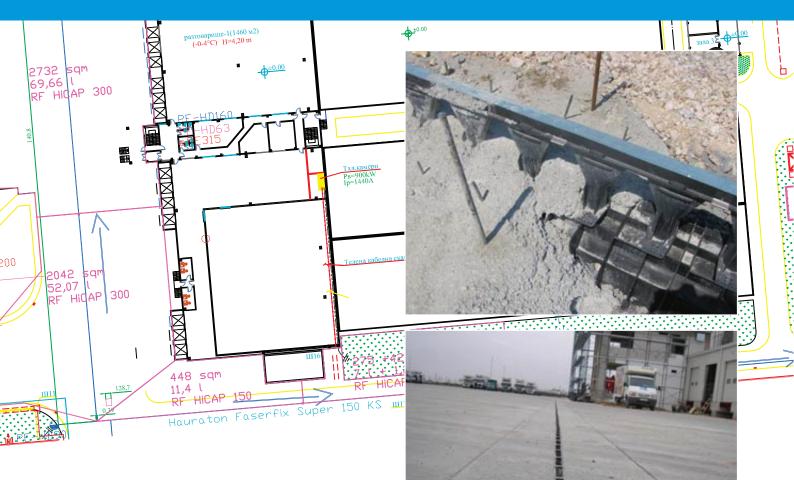
DRAINING LARGE STRETCHES WITH ONLY ONE CHANNEL RUN

RECYFIX HICAP is so effective because large stretches can be implemented with one single channel run. Starting with a nominal width of 100 mm it offers the option to expand up to 680 mm. With this the installation height increases as well and a channel is created underground which cannot be seen above ground. What's seen there is a drain line with a consistently narrow cover A trash box which can be installed at any location of the channel run is used to connect to the sewer system or as a connection to other branches of the drainage system. As a two-part component the trash box can also be used as a pump pit.



RECYFIX® HICAP®: CHANNELS WITH BACKWATER VOLUME





A PRACTICAL EXAMPLE:

The following practical example proofs the large drainage and retention capacity of RECYFIX HICAP channels:

Logistics Centre Plovdiv, Bulgaria

Channel length: 356 m, divided:

- □ 66 m RECYFIX HICAP 200 Type 465/300, open slot
- □ 136 m RECYFIX HICAP 300 Type 750/300, open slot
- □ 154 m RECYFIX HICAP 680 Type 860/300, open slot

Total drainage area: 10.730 m²

Runoff coefficient (specified by the planner): 0,85 Rain yield factor (specified by the planner): 300,0 l/s ha

 \rightarrow Discharge capacity at end of channel run: 252 l/s

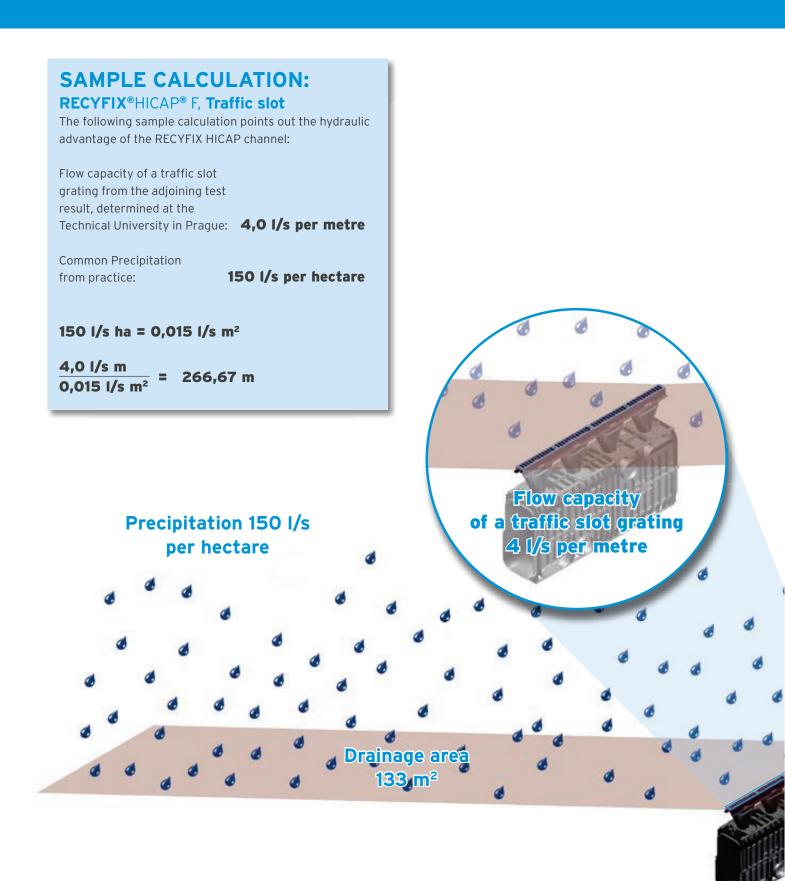
One single channel run drains a surface of more than 10,000 m², directs the entire water amount over more than 356 m and at the end puts it out into the public sewer at one single point, at a rate of 252 l/s.



AQUA

RECYFIX®HICAP®

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.





Intake-cross section and flow capacity of **RECYFIX**[®]HICAP[®] F



	Grating	Intake-cross section grating in l/s*	Flow capacity channel body in l/s
NW 100	Pedestrian	3,80	16,5
NW 100	Traffic	4,00	15,9
NW 100	Industrial	3,60	16,5
NW 150	Pedestrian	3,80	32,4
NW 150	Traffic	4,00	31,8
NW 150	Industrial	3,60	32,4
NW 200	Pedestrian	3,80	68,4
NW 200	Traffic	4,00	69,1
NW 200	Industrial	3,60	68,4
NW 300	Pedestrian	3,80	202,5
NW 300	Traffic	4,00	205,0
NW 300	Industrial	3,60	198,0
NW 680	Pedestrian	3,80	491,6
NW 680	Traffic	4,00	480,0
NW 680	Industrial	3,60	484,0

Drainage area 133 m²

* measured during excess backwater testing at 10 mm excess backwater

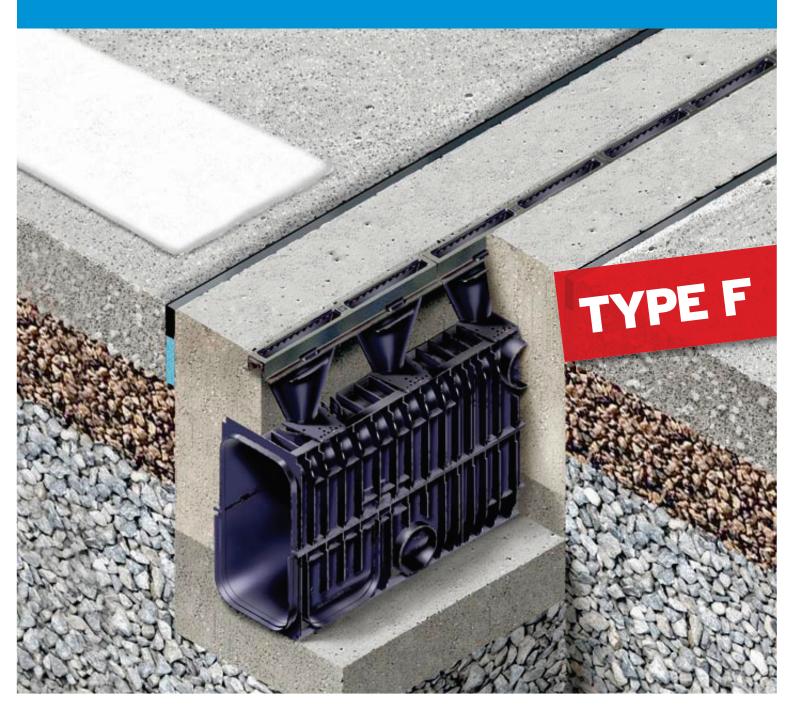
RESULT OF EXAMPLE:

1 m RECYFIX HICAP gutter with cross ridge cover drains an area of 266.67 m² at a precipitation of 150 l/s and hectare.

AQUA

RECYFIX®HICAP® F

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.



RECYFIX® HICAP® F

- for installation in concrete and asphalt areas
- direct driven surface made of ductile iron GGG-50
- Inlet adaptor and channel bocy made of PE-PP

AQUA

RECYFIX®HICAP® F

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.

REPORT FROM THE FIELD: **RECYFIX®**HICAP® F CHANNELS FOR HEATHROW AIRPORT, LONDON

With 67 million travellers annually, Heathrow Airport in London is Europe's busiest airport. Worldwide it takes third place behind Atlanta and Chicago. This important hub in international air traffic is operated by BAA, British Airports Authority, the largest airport operator worldwide. 75 % of the British Airways fleet is based at Heathrow Airport.



At the southern section of the airport the British Airways service park was expanded. The construction site abutted right on the runway and taxiway. The demands on the new service site were immense: here airplanes of all types and sizes pass - including the Airbus A380, which was also a main reason for the reconstruction. The aircraft tugs alone weight 80 tons and, just as the airplanes, drive and turn on the traffic areas. The demands on the drainage systems are accordingly high.

PROJECT PROGRESS

In 1999 BAA was already supplied with FASERFIX SUPER channels for the Gatwick airport and installed in the British Airways hangars and Concorde maintenance hangars. One year later came the delivery of FASERFIX SUPER KS 100 channels for London City Airport.

The assigned engineering office was very satisfied with the quality and service. In 2003 BAA broached the topic of installation and handling of drainage systems. The main topic of the discussions was the extreme weight of the products and the associated high employment of machines during installation.

On multiple occasions HAURATON contacted various departments of BAA and presented the advantages of RECYFIX products (lightweight, easy handling, meets British "Health and Safety Regulations" = One-man-lift = max. 25 kg). Drainage channels from this line were presented in various meetings and BAA decided across the board to work with HAURATON in the area of RECYFIX.







Hauraton

RECYFIX®HICAP® F - ECO-FRIENDLY AND 'EASY TO HANDLE'

Another key criterion for BAA was recycling. Airport planning and operation are subject to stringent environmental requirements. Products made of recycled plastic are therefore especially suited.

Suppliers routinely need to present BAA with product innovations which offer cost savings in installation and maintenance. In 2006 the time came for HAURATON to present the new line RECYFIX HICAP. The feedback was very positive, with BAA immediately recognising the resulting advantage in installation and maintenance, and the installation at Heathrow was decided.

INSTALLED

- 380 m RECYFIX HICAP F 300
- 100 m RECYFIX HICAP F 200
- 100 m RECYFIX HICAP F 150



Lightweight elements, installed by one single worker.

OTHER EXAMPLES OF RECYFIX® HICAP® F



AQUA

RECYFIX®HICAP® G

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.



RECYFIX® HICAP® G

- for direct installation of pavement, flagging and asphalt
- Slotted channel made from ductile iron GGG-50
- □ Channel body made from PE-PP

AQUA

RECYFIX®HICAP® G

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.

REPORT FROM THE FIELD: **RECYFIX**[®]HICAP[®] G 20 KM DRAINAGE CHANNELS FOR NEW FORMULA 1 TRACK, ABU DHABI

LARGEST JOB TO DATE IN THE COMPANY'S HISTORY

With more than 20 km of drainage channels it is the largest job in the HAURATON history. The latest channel system, the RECYFIX HICAP G, convinces HAURATON customers in the United Arab Emirates. The drainage system is innovative and the first system with a PE-PP channel body with a slotted cover made of heavy duty ductile iron, offering permanent safety for extreme loads.





Channel installation at the new Formula 1 track, Yas Marina Circuit, Abu Dhabi



RECYFIX®HICAP® G: The first ductile iron slotted Channel

The demanding race track is being built on a 170 hectare site and will be 5.55 kilometres long. The new channel system was developed especially for the special requirements of Formula 1: RECYFIX HICAP G. The advantages of this first ductile iron slotted channel with a PE-PP channel body were the key criteria for the contract being awarded. The drainage channels withstand the highest dynamic strains and are safe and reliable. At the same time they must also withstand the extreme suction effect generated by the high speeds of the bolides. The RECYFIX HICAP G used on the track not only meets the safety requirements but with their superior hydraulic capacity they also fulfil the functions of a sewer along the track. The channels take on surface water, carry it over long stretches and feed it into the main water channel at a single point.

Hauraton

ADVANTAGES: SLOT ATTACHMENT MADE OF SPHEROIDAL DUCTILE IRON: SUPER STURDY AND NONCORROSIVE

RECYFIX HICAP G is super sturdy and is used in areas with extreme loads. What's revolutionary is the use of the ductile iron material. Spheroid ductile iron GGG-50 combines the properties stability (slotted channels made of steel easily deform with the use of heavy pavements) and durability (galvanised steel can easily corrode in moist soils, losing the zinc protector, stainless steel is significantly more expensive). With spheroid ductile iron at the surface and the dual hydraulic performance underground the product offers a new dimension of safety.

VISUALLY DISCRETE AND EXTREMELY DURABLE

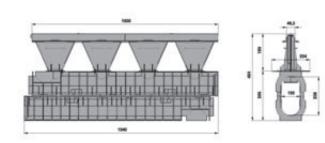
The "virtually invisible" channels are especially suited for the design of appealing sites and architecturally challenging areas where large-scale paving stone or natural stone pavements are oftentimes used: dynamic strains from traffic put great force on the upper edges of the channels. That's where the ductile iron attachment with integrated intake adapter offers especially great resistance against the emerging forces and prevents damage.



RECYFIX®HICAP® F

RECYFIX[®]HICAP[®]F 100 Type 265, PE-PP, slot desing made of spheroidal ductile iron GGG-50, **loading capacity F 900**

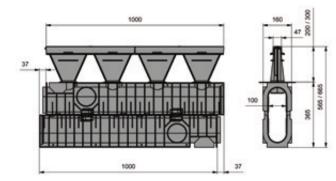




	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Type F 265/200, Pedestrian	1000	160	465	184	154	10,8	13000
Type F 265/200, Traffic	1000	160	465	184	172	10,8	13025
Type F 265/200, Industrial	1000	160	465	184	248	10,4	13035
Type F 265/300, Pedestrian	1000	160	565	184	154	11,1	13065
Type F 265/300, Traffic	1000	160	565	184	172	11,1	13075
Type F 265/300, Industrial	1000	160	565	184	248	10,8	13085

RECYFIX[®]HICAP[®]F 100 Type 365, PE-PP, slot desing made of spheroidal ductile iron GGG-50, **loading capacity F 900**





	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Type F 365/200, Pedestrian	1000	160	565	284	154	13,2	13010
Type F 365/200, Traffic	1000	160	565	284	172	13,1	13020
Type F 365/200, Industrial	1000	160	565	284	248	12,6	13030
Type F 365/300, Pedestrian	1000	160	665	284	154	13,4	13060
Type F 365/300, Traffic	1000	160	665	284	172	13,3	13070
Type F 365/300, Industrial	1000	160	665	284	248	12,8	13080

RECYFIX®HICAP®100, Accessories





End cap 100, type 365

End cap 100 with outlet,



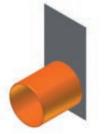
Nominal width 100 mm

Verbindungsstück 100 > 150,

type 365	type 365	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 100, type 365		-	160	365	1,8	13012
End cap 100 with outlet, type 365		-	160	365	2,0	13015
End cap type 265		-	140	250	1,2	13013
End cap with outlet, type 265		-	140	250	1,2	13018
Connecting plate 100 > 150, type 365		-	-	-	2,0	13017

RECYFIX[®]HICAP[®]150, Accessories





End cap 150

End cap 150

End cap 150 with outlet

End cap 150 with outlet



Connecting plate 150 > 200

_

Nominal width 100 mm

> ltem No.

Length Width Height Weight mm mm kg mm 379 2,0 13212 210 210 379 2,4 13215 _ Connecting plate 150 > 200 --2,2 13217

RECYFIX®HICAP®200, Accessories





End cap 200 with outlet





	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 200	-	252	465	2,0	13412
End capp 200 with outlet	-	252	465	2,1	13415
Connecting plate 200 > 300	-	-	-	2,0	13417



RECYFIX®HICAP®300, Accessories







Nominal width 100 mm

End cap 300

End cap 300 with outlet

Connecting plate 300 > 680

	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 300	-	420	748	3,0	13612
End cap 300 with outlet	-	420	748	5,6	13615
Connecting plate 300 > 680	-	-	-	6,0	13617

RECYFIX[®]HICAP[®]680, Accessories *



Nominal width 100 mm

End cap 680, 2-parts

	Length	Width	Height	Weight	ltem
	mm	mm	mm	kg	No.
End cap 680	192	780	860	4,4	13817

* Only for RECYFIX HICAP Type F

RECYFIX[®]HICAP[®] Trash box, Accessories



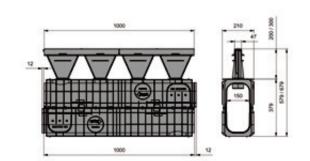
Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multipart constructions are possible.



RECYFIX®HICAP® F

RECYFIX[®]HICAP[®]F 150 Type 380, PE-PP, slot desing made of spheroidal ductile iron GGG-50, **loading capacity F 900**

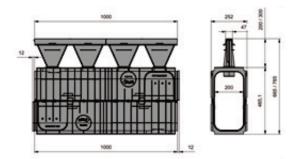
Type F 380/200, Pedestrian



	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Type F 380/200, Pedestrian	1000	210	580	460	154	12,5	13210
Type F 380/200, Traffic	1000	210	580	460	172	12,4	13220
Type F 380/200, Industrial	1000	210	580	460	248	11,9	13230
Type F 380/300, Pedestrian	1000	210	680	460	154	12,7	13260
Type F 380/300, Traffic	1000	210	680	460	172	12,6	13270
Type F 380/300, Industrial	1000	210	680	460	248	12,1	13280

RECYFIX[®]HICAP[®]F 200 Type 465, PE-PP, slot desing made of spheroidal ductile iron GGG-50, **loading capacity F 900**





	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Type F 465/200, Pedestrian	1000	252	665	790	154	14,0	13410
Type F 465/200, Traffic	1000	252	665	790	172	13,9	13420
Type F 465/200, Industrial	1000	252	665	790	248	13,4	13430
Type F 465/300, Pedestrian	1000	252	765	790	154	14,2	13460
Type F 465/300, Traffic	1000	252	765	790	172	14,1	13470
Type F 465/300, Industrial	1000	252	765	790	248	13,6	13480

RECYFIX®HICAP®100, Accessories





End cap 100, type 365

End cap 100 with outlet,



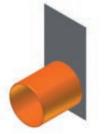
Nominal width 100 mm

Verbindungsstück 100 > 150,

type 365	type 365	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 100, type 365		-	160	365	1,8	13012
End cap 100 with outlet, type 365		-	160	365	2,0	13015
End cap type 265		-	140	250	1,2	13013
End cap with outlet, type 265		-	140	250	1,2	13018
Connecting plate 100 > 150, type 365		-	-	-	2,0	13017

RECYFIX[®]HICAP[®]150, Accessories





End cap 150

End cap 150

End cap 150 with outlet

End cap 150 with outlet



Connecting plate 150 > 200

_

Nominal width 100 mm

> ltem No.

Length Width Height Weight mm mm kg mm 379 2,0 13212 210 210 379 2,4 13215 _ Connecting plate 150 > 200 --2,2 13217

RECYFIX®HICAP®200, Accessories





End cap 200 with outlet





	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 200	-	252	465	2,0	13412
End capp 200 with outlet	-	252	465	2,1	13415
Connecting plate 200 > 300	-	-	-	2,0	13417



RECYFIX®HICAP®300, Accessories







Nominal width 100 mm

End cap 300

End cap 300 with outlet

Connecting plate 300 > 680

	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 300	-	420	748	3,0	13612
End cap 300 with outlet	-	420	748	5,6	13615
Connecting plate 300 > 680	-	-	-	6,0	13617

RECYFIX[®]HICAP[®]680, Accessories *



Nominal width 100 mm

End cap 680, 2-parts

	Length	Width	Height	Weight	ltem
	mm	mm	mm	kg	No.
End cap 680	192	780	860	4,4	13817

* Only for RECYFIX HICAP Type F

RECYFIX[®]HICAP[®] Trash box, Accessories



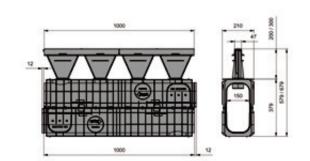
Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multipart constructions are possible.



RECYFIX®HICAP® F

RECYFIX[®]HICAP[®]F 150 Type 380, PE-PP, slot desing made of spheroidal ductile iron GGG-50, **loading capacity F 900**

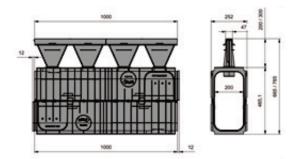
Type F 380/200, Pedestrian



	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Type F 380/200, Pedestrian	1000	210	580	460	154	12,5	13210
Type F 380/200, Traffic	1000	210	580	460	172	12,4	13220
Type F 380/200, Industrial	1000	210	580	460	248	11,9	13230
Type F 380/300, Pedestrian	1000	210	680	460	154	12,7	13260
Type F 380/300, Traffic	1000	210	680	460	172	12,6	13270
Type F 380/300, Industrial	1000	210	680	460	248	12,1	13280

RECYFIX[®]HICAP[®]F 200 Type 465, PE-PP, slot desing made of spheroidal ductile iron GGG-50, **loading capacity F 900**





	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Type F 465/200, Pedestrian	1000	252	665	790	154	14,0	13410
Type F 465/200, Traffic	1000	252	665	790	172	13,9	13420
Type F 465/200, Industrial	1000	252	665	790	248	13,4	13430
Type F 465/300, Pedestrian	1000	252	765	790	154	14,2	13460
Type F 465/300, Traffic	1000	252	765	790	172	14,1	13470
Type F 465/300, Industrial	1000	252	765	790	248	13,6	13480

RECYFIX®HICAP®100, Accessories





End cap 100, type 365

End cap 100 with outlet,



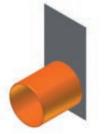
Nominal width 100 mm

Verbindungsstück 100 > 150,

type 365	type 365	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 100, type 365		-	160	365	1,8	13012
End cap 100 with outlet, type 365		-	160	365	2,0	13015
End cap type 265		-	140	250	1,2	13013
End cap with outlet, type 265		-	140	250	1,2	13018
Connecting plate 100 > 150, type 365		-	-	-	2,0	13017

RECYFIX[®]HICAP[®]150, Accessories





End cap 150

End cap 150

End cap 150 with outlet

End cap 150 with outlet



Connecting plate 150 > 200

_

Nominal width 100 mm

> ltem No.

Length Width Height Weight mm mm kg mm 379 2,0 13212 210 210 379 2,4 13215 _ Connecting plate 150 > 200 --2,2 13217

RECYFIX®HICAP®200, Accessories





End cap 200 with outlet





	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 200	-	252	465	2,0	13412
End capp 200 with outlet	-	252	465	2,1	13415
Connecting plate 200 > 300	-	-	-	2,0	13417



RECYFIX®HICAP®300, Accessories







Nominal width 100 mm

End cap 300

End cap 300 with outlet

Connecting plate 300 > 680

	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 300	-	420	748	3,0	13612
End cap 300 with outlet	-	420	748	5,6	13615
Connecting plate 300 > 680	-	-	-	6,0	13617

RECYFIX[®]HICAP[®]680, Accessories *



Nominal width 100 mm

End cap 680, 2-parts

	Length	Width	Height	Weight	ltem
	mm	mm	mm	kg	No.
End cap 680	192	780	860	4,4	13817

* Only for RECYFIX HICAP Type F

RECYFIX[®]HICAP[®] Trash box, Accessories

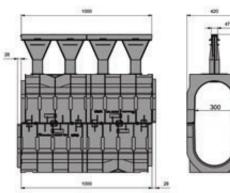


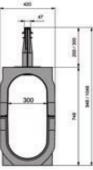
Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multipart constructions are possible.

RECYFIX®HICAP® F

RECYFIX[®]HICAP[®]F 300 Type 750, PE-PP, slot desing made of spheroidal ductile iron GGG-50, loading capacity F 900*







	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Type F 750/200, Pedestrian	1000	420	950	1714	154	24,0	13610
Type F 750/200, Traffic	1000	420	950	1714	172	23,9	13620
Type F 750/200, Industrial	1000	420	950	1714	248	23,4	13630
Type F 750/300, Pedestrian	1000	420	1050	1714	154	24,2	13660
Type F 750/300, Traffic	1000	420	1050	1714	172	24,1	13670
Type F 750/300, Industrial	1000	420	1050	1714	248	26,6	13680

RECYFIX®HICAP®100, Accessories





End cap 100, type 365

End cap 100 with outlet,



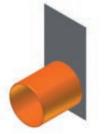
Nominal width 100 mm

Verbindungsstück 100 > 150,

type 365	type 365	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 100, type 365		-	160	365	1,8	13012
End cap 100 with outlet, type 365		-	160	365	2,0	13015
End cap type 265		-	140	250	1,2	13013
End cap with outlet, type 265		-	140	250	1,2	13018
Connecting plate 100 > 150, type 365		-	-	-	2,0	13017

RECYFIX[®]HICAP[®]150, Accessories





End cap 150

End cap 150

End cap 150 with outlet

End cap 150 with outlet



Connecting plate 150 > 200

_

Nominal width 100 mm

> ltem No.

Length Width Height Weight mm mm kg mm 379 2,0 13212 210 210 379 2,4 13215 _ Connecting plate 150 > 200 --2,2 13217

RECYFIX®HICAP®200, Accessories





End cap 200 with outlet





	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 200	-	252	465	2,0	13412
End capp 200 with outlet	-	252	465	2,1	13415
Connecting plate 200 > 300	-	-	-	2,0	13417



RECYFIX®HICAP®300, Accessories







Nominal width 100 mm

End cap 300

End cap 300 with outlet

Connecting plate 300 > 680

	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 300	-	420	748	3,0	13612
End cap 300 with outlet	-	420	748	5,6	13615
Connecting plate 300 > 680	-	-	-	6,0	13617

RECYFIX[®]HICAP[®]680, Accessories *



Nominal width 100 mm

End cap 680, 2-parts

	Length	Width	Height	Weight	ltem
	mm	mm	mm	kg	No.
End cap 680	192	780	860	4,4	13817

* Only for RECYFIX HICAP Type F

RECYFIX[®]HICAP[®] Trash box, Accessories



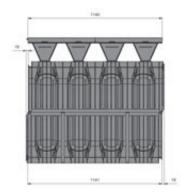
Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multipart constructions are possible.



RECYFIX®HICAP® F

RECYFIX[®]HICAP[®]F 680 Type 860, PE-PP, slot desing made of spheroidal ductile iron GGG-50, loading capacity F 900*







	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Type F 860/200, Pedestrian	1142	780	1060	4150	154	30,9	13810
Type F 860/200, Traffic	1142	780	1060	4150	172	31,0	13820
Type F 860/200, Industrial	1142	780	1060	4150	248	30,4	13830
Type F 860/300, Pedestrian	1142	780	1160	4150	154	31,9	13860
Type F 860/300, Traffic	1142	780	1160	4150	172	31,2	13870
Type F 860/300, Industrial	1142	780	1160	4150	248	30,6	13880

RECYFIX®HICAP®100, Accessories





End cap 100, type 365

End cap 100 with outlet,



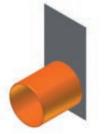
Nominal width 100 mm

Verbindungsstück 100 > 150,

type 365	type 365	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 100, type 365		-	160	365	1,8	13012
End cap 100 with outlet, type 365		-	160	365	2,0	13015
End cap type 265		-	140	250	1,2	13013
End cap with outlet, type 265		-	140	250	1,2	13018
Connecting plate 100 > 150, type 365		-	-	-	2,0	13017

RECYFIX[®]HICAP[®]150, Accessories





End cap 150

End cap 150

End cap 150 with outlet

End cap 150 with outlet



Connecting plate 150 > 200

_

Nominal width 100 mm

> ltem No.

Length Width Height Weight mm mm kg mm 379 2,0 13212 210 210 379 2,4 13215 _ Connecting plate 150 > 200 --2,2 13217

RECYFIX®HICAP®200, Accessories





End cap 200 with outlet





	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 200	-	252	465	2,0	13412
End capp 200 with outlet	-	252	465	2,1	13415
Connecting plate 200 > 300	-	-	-	2,0	13417



RECYFIX®HICAP®300, Accessories







Nominal width 100 mm

End cap 300

End cap 300 with outlet

Connecting plate 300 > 680

	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 300	-	420	748	3,0	13612
End cap 300 with outlet	-	420	748	5,6	13615
Connecting plate 300 > 680	-	-	-	6,0	13617

RECYFIX[®]HICAP[®]680, Accessories *



Nominal width 100 mm

End cap 680, 2-parts

	Length	Width	Height	Weight	ltem
	mm	mm	mm	kg	No.
End cap 680	192	780	860	4,4	13817

* Only for RECYFIX HICAP Type F

RECYFIX[®]HICAP[®] Trash box, Accessories



Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multipart constructions are possible.

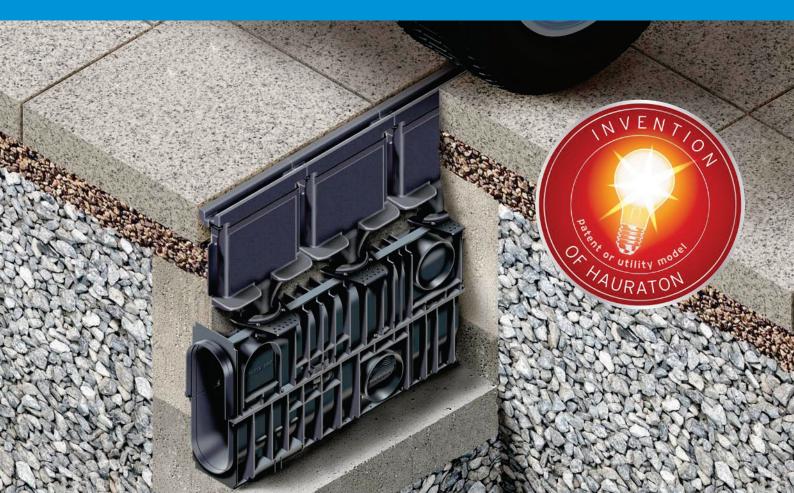


RECYFIX®HICAP®

EFFECTIVELY DRAINED - BUILT MODULAR.

DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.





AQUA

RECYFIX®HICAP®

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.

SPECIAL STANDARDS IN TIMES OF CLIMATE CHANGE

Due to the climate change the German Meteorological Service (DWD) has redefines heavy precipitations to be expected. Torrential rain lasting more than 5 minutes, which statistically is to be expected once in 5 years, must now be assessed to have 10 % more content than before. Large areas with a high traffic volume therefore require a particularly effective drainage solution.

At the same time the channel run must offer a large backwater reserve to meet community standards following measures for flood safety. In barrier-free urban and residential areas steps and kerbs, which would serve as a barrier for flood zones, are omitted. For these applications the drainage system must provide sufficient safety.



THE NEW SOLUTION: RECYFIX® HICAP®

RECYFIX HICAP has been developed for special drainage functions. The channel system is used for draining large areas and simultaneously serves as a retention space. The RECYFIX HICAP drainage system holds large volumes of surface water, guides it over large distances and at one point directs it to the main channel. The system offers very high hydraulic capacity for increasing drainage averages. This creates a large backwater reserve. At the same time it offers the option to restrict the water output to the main water channel and to slowly release the collected water into the sewage network.

ADVANTAGES

for planners

- Drainage and retention in one assembly
- □ Large selection of nominal sizes from 100 to 680 mm
- □ suitable for all load classes and all popular pavements
- □ fewer trash boxes and outlets
- □ allows projects to be designed with a uniform look

for contractors

- Quick and easy installation
- □ break-proof components
- □ no separate covers
- □ less sewer connection work

for construction companies

- □ Safety through large hydraulic capacity
- □ Easy to service
- □ Continuously uniform look

Hauraton



GRATINGS MADE OF STURDY SPHEROID DUCTILE IRON

The integrated gratings are made of high-quality spheroid ductile iron GGG-50. Different grating designs are available for different application areas. In roadways and pedestrian areas cross- or lengthwise webs are used. In industrial areas the "open slot" option with a particularly large intake-cross section can be used. The ductile iron GGG-50 surface driven on is extremely sturdy and unbreakable. It is designed for particularly high strain caused e.g. by heavy goods vehicles or airplanes.

The material spheroid ductile iron GGG-50 features 23 times more tensile strength and 9 times more compressive strength than polymer concrete. In regard to load and resistance to wear these physical characteristics clearly speak in favour of the REFYFIX HICAP channels.





PE-PP CHANNEL BODIES

The bodies of the RECYFIX HICAP channels are made of eco-friendly PE-PP recycled plastic. They are very lightweight and due to their low weight easy to install. The elements can be installed without installation aids.

They are non-breakable and easily connected with groove and tongue joints. Special connectors ensure the accurately fit transition between differently sized channels.

AT A GLANCE:

- Drainage and retention in one assembly
- ✓ consistently optic
- easy installation
- ✓ for highest loading capacities up to F 900

RECYFIX[®]HICAP[®]

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.

RECYFIX HICAP channels have been tested to comply with DIN EN 1433 and are suitable for installation in loading classes A 15 to F 900







CATEGORY D 400 CATEGORY E 600 CATEGORY F 900

8

TYPES OF SLOTS

RECYFIX[®]HICAP[®] F





Traffic





Pedestrian

Inlet adaptors made of PE-PP

Industrial

Traffic

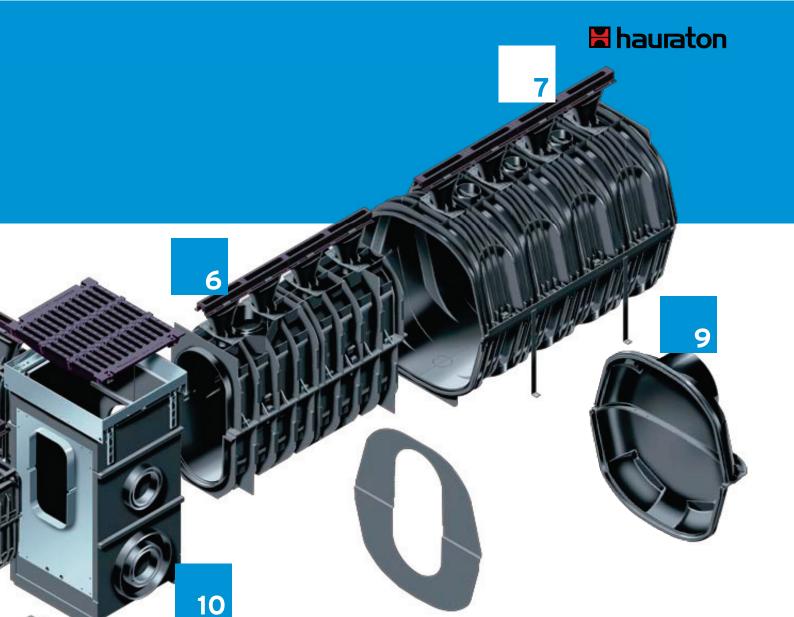
Pedestrian *

* available from 2010





Industrial *



1

RECYFIX HICAP Channel 100 made of PE-PP channel body and inlet adaptor with integrated ductile iron grating

2

With the connecting plate the next nominal size is connected

3

RECYFIX HICAP Channel 150 made of PE-PP channel body and inlet adaptor with integrated ductile iron grating

4

T-connection for connection of leaks

5

RECYFIX HICAP Channel 200 made of PE-PP channel body and inlet adaptor with integrated ductile iron grating

6

RECYFIX HICAP Channel 300 made of PE-PP channel body and inlet adaptor with integrated ductile iron grating

7

RECYFIX HICAP Channel 680 made of PE-PP channel body and inlet adaptor with integrated ductile iron grating

8

End cap 100

9

End cap 680 with pipe connection possibility

10

Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multi part constructions are possible.

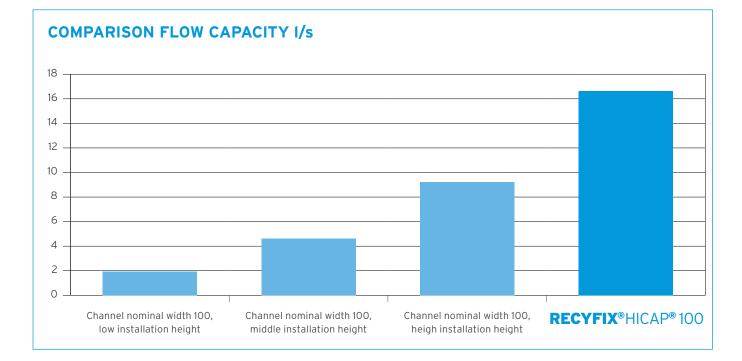
AQUA

RECYFIX®HICAP®

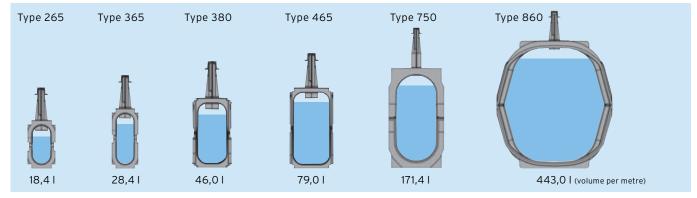
EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.

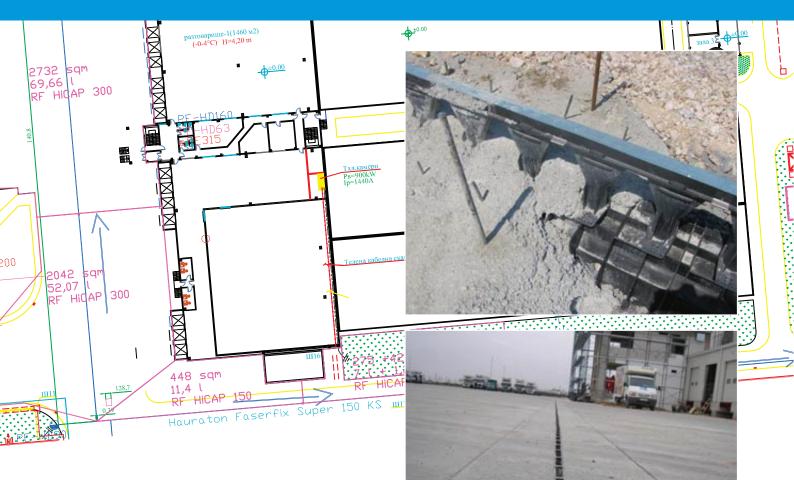
DRAINING LARGE STRETCHES WITH ONLY ONE CHANNEL RUN

RECYFIX HICAP is so effective because large stretches can be implemented with one single channel run. Starting with a nominal width of 100 mm it offers the option to expand up to 680 mm. With this the installation height increases as well and a channel is created underground which cannot be seen above ground. What's seen there is a drain line with a consistently narrow cover A trash box which can be installed at any location of the channel run is used to connect to the sewer system or as a connection to other branches of the drainage system. As a two-part component the trash box can also be used as a pump pit.



RECYFIX® HICAP®: CHANNELS WITH BACKWATER VOLUME





A PRACTICAL EXAMPLE:

The following practical example proofs the large drainage and retention capacity of RECYFIX HICAP channels:

Logistics Centre Plovdiv, Bulgaria

Channel length: 356 m, divided:

- □ 66 m RECYFIX HICAP 200 Type 465/300, open slot
- □ 136 m RECYFIX HICAP 300 Type 750/300, open slot
- □ 154 m RECYFIX HICAP 680 Type 860/300, open slot

Total drainage area: 10.730 m²

Runoff coefficient (specified by the planner): 0,85 Rain yield factor (specified by the planner): 300,0 l/s ha

 \rightarrow Discharge capacity at end of channel run: 252 l/s

One single channel run drains a surface of more than 10,000 m², directs the entire water amount over more than 356 m and at the end puts it out into the public sewer at one single point, at a rate of 252 l/s.



AQUA

RECYFIX®HICAP® G

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.



RECYFIX® HICAP® G

- for direct installation of pavement, flagging and asphalt
- Slotted channel made from ductile iron GGG-50
- □ Channel body made from PE-PP

AQUA

RECYFIX®HICAP® G

EFFECTIVELY DRAINED - BUILT MODULAR. DRAINAGE- AND RETENTION SYSTEM FOR LARGER AREAS.

REPORT FROM THE FIELD: **RECYFIX**[®]HICAP[®] G 20 KM DRAINAGE CHANNELS FOR NEW FORMULA 1 TRACK, ABU DHABI

LARGEST JOB TO DATE IN THE COMPANY'S HISTORY

With more than 20 km of drainage channels it is the largest job in the HAURATON history. The latest channel system, the RECYFIX HICAP G, convinces HAURATON customers in the United Arab Emirates. The drainage system is innovative and the first system with a PE-PP channel body with a slotted cover made of heavy duty ductile iron, offering permanent safety for extreme loads.





Channel installation at the new Formula 1 track, Yas Marina Circuit, Abu Dhabi



RECYFIX®HICAP® G: The first ductile iron slotted Channel

The demanding race track is being built on a 170 hectare site and will be 5.55 kilometres long. The new channel system was developed especially for the special requirements of Formula 1: RECYFIX HICAP G. The advantages of this first ductile iron slotted channel with a PE-PP channel body were the key criteria for the contract being awarded. The drainage channels withstand the highest dynamic strains and are safe and reliable. At the same time they must also withstand the extreme suction effect generated by the high speeds of the bolides. The RECYFIX HICAP G used on the track not only meets the safety requirements but with their superior hydraulic capacity they also fulfil the functions of a sewer along the track. The channels take on surface water, carry it over long stretches and feed it into the main water channel at a single point.

Hauraton

ADVANTAGES: SLOT ATTACHMENT MADE OF SPHEROIDAL DUCTILE IRON: SUPER STURDY AND NONCORROSIVE

RECYFIX HICAP G is super sturdy and is used in areas with extreme loads. What's revolutionary is the use of the ductile iron material. Spheroid ductile iron GGG-50 combines the properties stability (slotted channels made of steel easily deform with the use of heavy pavements) and durability (galvanised steel can easily corrode in moist soils, losing the zinc protector, stainless steel is significantly more expensive). With spheroid ductile iron at the surface and the dual hydraulic performance underground the product offers a new dimension of safety.

VISUALLY DISCRETE AND EXTREMELY DURABLE

The "virtually invisible" channels are especially suited for the design of appealing sites and architecturally challenging areas where large-scale paving stone or natural stone pavements are oftentimes used: dynamic strains from traffic put great force on the upper edges of the channels. That's where the ductile iron attachment with integrated intake adapter offers especially great resistance against the emerging forces and prevents damage.

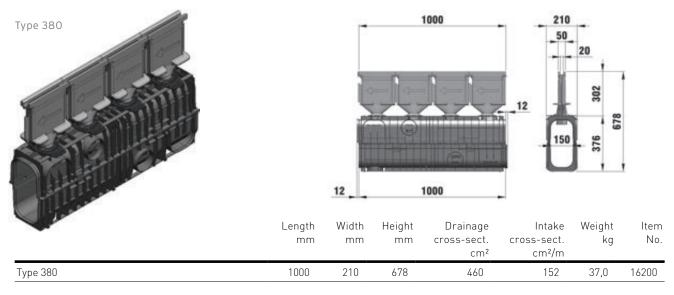


RECYFIX[®]HICAP[®] G

RECYFIX[®]HICAP[®]G 100, PE-PP body, slot desing made of spheroidal ductile iron GGG-50, loading capacity F 900

Type 365		12		1000	147 50 12 100	362 302 00 1	
Old State	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Туре 365	1000	147	664	284	152	37,3	16150

RECYFIX[®]HICAP[®]G 150, PE-PP body, slot desing made of spheroidal ductile iron GGG-50, **loading capacity F 900**



RECYFIX®HICAP®100, Accessories





End cap 100, type 365

End cap 100 with outlet,



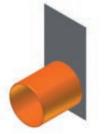
Nominal width 100 mm

Verbindungsstück 100 > 150,

type 365	type 365	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 100, type 365		-	160	365	1,8	13012
End cap 100 with outlet, type 365		-	160	365	2,0	13015
End cap type 265		-	140	250	1,2	13013
End cap with outlet, type 265		-	140	250	1,2	13018
Connecting plate 100 > 150, type 365		-	-	-	2,0	13017

RECYFIX[®]HICAP[®]150, Accessories





End cap 150

End cap 150

End cap 150 with outlet

End cap 150 with outlet



Connecting plate 150 > 200

_

Nominal width 100 mm

> ltem No.

Length Width Height Weight mm mm kg mm 379 2,0 13212 210 210 379 2,4 13215 _ Connecting plate 150 > 200 --2,2 13217

RECYFIX®HICAP®200, Accessories





End cap 200 with outlet





	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 200	-	252	465	2,0	13412
End capp 200 with outlet	-	252	465	2,1	13415
Connecting plate 200 > 300	-	-	-	2,0	13417



RECYFIX®HICAP®300, Accessories







Nominal width 100 mm

End cap 300

End cap 300 with outlet

Connecting plate 300 > 680

	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 300	-	420	748	3,0	13612
End cap 300 with outlet	-	420	748	5,6	13615
Connecting plate 300 > 680	-	-	-	6,0	13617

RECYFIX[®]HICAP[®]680, Accessories *



Nominal width 100 mm

End cap 680, 2-parts

	Length	Width	Height	Weight	ltem
	mm	mm	mm	kg	No.
End cap 680	192	780	860	4,4	13817

* Only for RECYFIX HICAP Type F

RECYFIX[®]HICAP[®] Trash box, Accessories



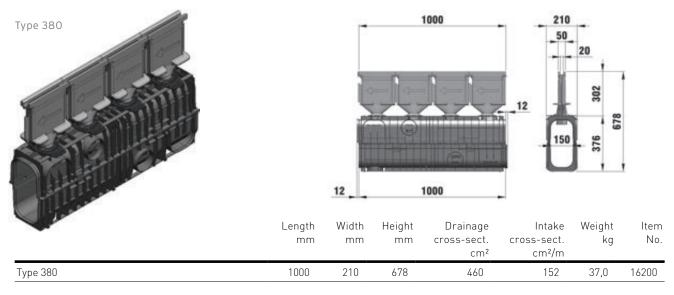
Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multipart constructions are possible.

RECYFIX[®]HICAP[®] G

RECYFIX[®]HICAP[®]G 100, PE-PP body, slot desing made of spheroidal ductile iron GGG-50, loading capacity F 900

Type 365		12		1000	147 50 12 100	362 302 00 1	
Old State	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Туре 365	1000	147	664	284	152	37,3	16150

RECYFIX[®]HICAP[®]G 150, PE-PP body, slot desing made of spheroidal ductile iron GGG-50, **loading capacity F 900**



RECYFIX®HICAP®100, Accessories





End cap 100, type 365

End cap 100 with outlet,



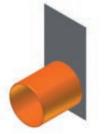
Nominal width 100 mm

Verbindungsstück 100 > 150,

type 365	type 365	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 100, type 365		-	160	365	1,8	13012
End cap 100 with outlet, type 365		-	160	365	2,0	13015
End cap type 265		-	140	250	1,2	13013
End cap with outlet, type 265		-	140	250	1,2	13018
Connecting plate 100 > 150, type 365		-	-	-	2,0	13017

RECYFIX[®]HICAP[®]150, Accessories





End cap 150

End cap 150

End cap 150 with outlet

End cap 150 with outlet



Connecting plate 150 > 200

_

Nominal width 100 mm

> ltem No.

Length Width Height Weight mm mm kg mm 379 2,0 13212 210 210 379 2,4 13215 _ Connecting plate 150 > 200 --2,2 13217

RECYFIX®HICAP®200, Accessories





End cap 200 with outlet





	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 200	-	252	465	2,0	13412
End capp 200 with outlet	-	252	465	2,1	13415
Connecting plate 200 > 300	-	-	-	2,0	13417



RECYFIX®HICAP®300, Accessories







Nominal width 100 mm

End cap 300

End cap 300 with outlet

Connecting plate 300 > 680

	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 300	-	420	748	3,0	13612
End cap 300 with outlet	-	420	748	5,6	13615
Connecting plate 300 > 680	-	-	-	6,0	13617

RECYFIX[®]HICAP[®]680, Accessories *



Nominal width 100 mm

End cap 680, 2-parts

	Length	Width	Height	Weight	ltem
	mm	mm	mm	kg	No.
End cap 680	192	780	860	4,4	13817

* Only for RECYFIX HICAP Type F

RECYFIX[®]HICAP[®] Trash box, Accessories



Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multipart constructions are possible.

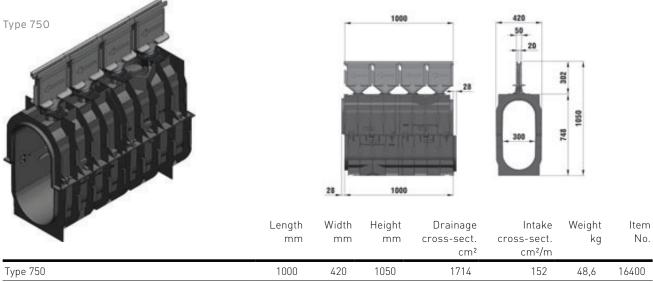


RECYFIX[®]HICAP[®] G

RECYFIX[®]HICAP[®]G 200, PE-PP body, slot desing made of spheroidal ductile iron GGG-50, loading capacity F 900

Type 465	1	2	100		252 50 20 20 200	- 164	
Contraction of the second seco	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Туре 465	1000	252	764	790	152	38,6	16350

RECYFIX[®]HICAP[®]G 300, PE-PP body, slot desing made of spheroidal ductile iron GGG-50, **loading capacity F 900**



RECYFIX®HICAP®100, Accessories





End cap 100, type 365

End cap 100 with outlet,



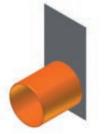
Nominal width 100 mm

Verbindungsstück 100 > 150,

type 365	type 365	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 100, type 365		-	160	365	1,8	13012
End cap 100 with outlet, type 365		-	160	365	2,0	13015
End cap type 265		-	140	250	1,2	13013
End cap with outlet, type 265		-	140	250	1,2	13018
Connecting plate 100 > 150, type 365		-	-	-	2,0	13017

RECYFIX[®]HICAP[®]150, Accessories





End cap 150

End cap 150

End cap 150 with outlet

End cap 150 with outlet



Connecting plate 150 > 200

_

Nominal width 100 mm

> ltem No.

Length Width Height Weight mm mm kg mm 379 2,0 13212 210 210 379 2,4 13215 _ Connecting plate 150 > 200 --2,2 13217

RECYFIX®HICAP®200, Accessories





End cap 200 with outlet





	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 200	-	252	465	2,0	13412
End capp 200 with outlet	-	252	465	2,1	13415
Connecting plate 200 > 300	-	-	-	2,0	13417



RECYFIX®HICAP®300, Accessories







Nominal width 100 mm

End cap 300

End cap 300 with outlet

Connecting plate 300 > 680

	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 300	-	420	748	3,0	13612
End cap 300 with outlet	-	420	748	5,6	13615
Connecting plate 300 > 680	-	-	-	6,0	13617

RECYFIX[®]HICAP[®]680, Accessories *



Nominal width 100 mm

End cap 680, 2-parts

	Length	Width	Height	Weight	ltem
	mm	mm	mm	kg	No.
End cap 680	192	780	860	4,4	13817

* Only for RECYFIX HICAP Type F

RECYFIX[®]HICAP[®] Trash box, Accessories



Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multipart constructions are possible.

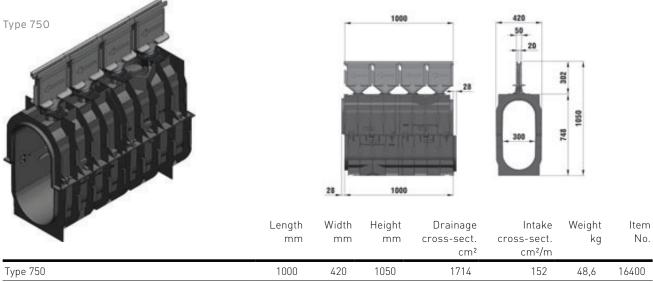


RECYFIX[®]HICAP[®] G

RECYFIX[®]HICAP[®]G 200, PE-PP body, slot desing made of spheroidal ductile iron GGG-50, loading capacity F 900

Type 465	1	2	100		252 50 20 20 200	- 164	
Contraction of the second seco	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²/m	Weight kg	ltem No.
Туре 465	1000	252	764	790	152	38,6	16350

RECYFIX[®]HICAP[®]G 300, PE-PP body, slot desing made of spheroidal ductile iron GGG-50, **loading capacity F 900**



RECYFIX®HICAP®100, Accessories





End cap 100, type 365

End cap 100 with outlet,



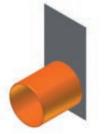
Nominal width 100 mm

Verbindungsstück 100 > 150,

type 365	type 365	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 100, type 365		-	160	365	1,8	13012
End cap 100 with outlet, type 365		-	160	365	2,0	13015
End cap type 265		-	140	250	1,2	13013
End cap with outlet, type 265		-	140	250	1,2	13018
Connecting plate 100 > 150, type 365		-	-	-	2,0	13017

RECYFIX[®]HICAP[®]150, Accessories





End cap 150

End cap 150

End cap 150 with outlet

End cap 150 with outlet



Connecting plate 150 > 200

_

Nominal width 100 mm

> ltem No.

Length Width Height Weight mm mm kg mm 379 2,0 13212 210 210 379 2,4 13215 _ Connecting plate 150 > 200 --2,2 13217

RECYFIX®HICAP®200, Accessories





End cap 200 with outlet





	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 200	-	252	465	2,0	13412
End capp 200 with outlet	-	252	465	2,1	13415
Connecting plate 200 > 300	-	-	-	2,0	13417



RECYFIX[®]HICAP[®] – ACCESSORY

RECYFIX®HICAP®300, Accessories







Nominal width 100 mm

End cap 300

End cap 300 with outlet

Connecting plate 300 > 680

	Length mm	Width mm	Height mm	Weight kg	ltem No.
End cap 300	-	420	748	3,0	13612
End cap 300 with outlet	-	420	748	5,6	13615
Connecting plate 300 > 680	-	-	-	6,0	13617

RECYFIX[®]HICAP[®]680, Accessories *



Nominal width 100 mm

End cap 680, 2-parts

	Length	Width	Height	Weight	ltem
	mm	mm	mm	kg	No.
End cap 680	192	780	860	4,4	13817

* Only for RECYFIX HICAP Type F

RECYFIX[®]HICAP[®] Trash box, Accessories



Trash box with galvanised angle housing and boltless locking system SIDE-LOCK, ductile iron grating cl. F 900 and 2-sided pipe connection possibility. Applicable for variable nominal size intersection on any position of the channel run. Also multipart constructions are possible.

For the installation of trash boxes please ask in the factory.

FASERFIX®POINT

POINT DRAINAGE WHERE IT IS REQUIRED. FOR PUBLIC AND COMMERCIAL AREAS.





AT A GLANCE

✓ Ideal for yards and squares with heavy traffic

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- Highly stable, reduced weight
- With SIDE-LOCK boltless locking system
- ✓ Visually attractive and very strong GUGI-Ductile iron mesh gratings with high drainage capacity

FASERFIX®POINT

POINT DRAINAGE WHERE IT IS REQUIRED. FOR PUBLIC AND COMMERCIAL AREAS.

REQUIREMENTS

Draining away surface water at a certain point for reasons of building layout and topography. The system to be used must be able to permanently withstand the expected traffic load and integrate harmoniously into the surrounding surface finish.

SOLUTION

FASERFIX POINT SUPER yard gullies are heavy-duty point drainage systems in fibre-reinforced concrete that comply with DIN EN 124. The top edges are protected by a galvanised steel angle housing all round. The gratings are securely locked to the base box using the SIDE-LOCK boltless locking system. The point inlets are equipped with an integral KG connector sleeve for connecting to the ground drainage system. A mud bucket in galvanised steel or plastic will be supplied with all FASERFIX POINT SUPER inlets. In addition, an immersion baffle in galvanised steel is used in the FASERFIX POINT SUPER point inlet as foul air trap.

APPLICATION AREAS

Draining surface water from yards, squares and parking areas in commercial and private areas.

POINT INLET

All FASERFIX POINT SUPER yard gullies can be installed with different construction heights. Connection to any common ground drainage pipe is easy via the integrated KG connection sleeve.

TRASH BOX

FASERFIX POINT SUPER yard gullies can also be used as trash boxes in linear drainage runs of various channel types. When using FASERFIX SUPER trash boxes as inlet boxes, it is possible to connect FASERFIX SUPER channels of the sizes NW 100, 150, 200 and 300 mm. The boxes have integrated connectors on all four sides. This makes it possible to install right-angle corners, T-junctions or cross-shaped connections.

SLUDGE TRAP

Where the trapping of solids is a requirement, it is also possible to install the FASERFIX SUPER trash box or the 2- or 3-part FASERFIX POINT SUPER yard gully as sludge trap. In that case, the outlet openings in the lower part will be closed off and an additional outlet opening inserted in the middle part or the upper part.



FASERFIX®POINT Point drainage for many application areas

Models	Inlet box	Point inlet	Sludge trap	Pump sump
FASERFIX SUPER Yard gully	X ¹⁾	×	×	×
FASERFIX POINT SUPER Typ 30/30	X ²⁾	×	-	_
FASERFIX POINT SUPER Typ 40/40	X ³⁾	×	×	×

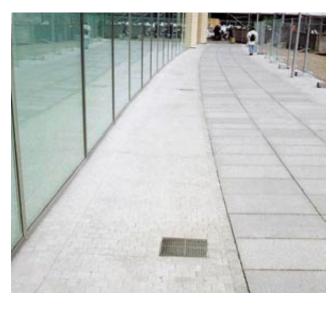
1) for FASERFIX SUPER KS NW 100-300 mm, 2) for FASERFIX SUPER KS 100, type 010, 3) for FASERFIX SUPER KS 150, type 010

FASERFIX®POINT

TAILOR-MADE SOLUTIONS.

EXAMPLES OF TAILOR-MADE SOLUTIONS FOR INDIVIDUAL CUSTOMER REQUIREMENTS.

All sites have their own specific topography which needs to be matched by individual drainage systems. In addition, the layout of buildings determines certain aspects of the system. HAURATON has a specialised team dealing exclusively with non-standard solutions – from the outline design stage right through to timely delivery and support during installation. In this way a suitable solution will be found for all applications, including point inlets, which can be sited to suit the individual situation of a project.

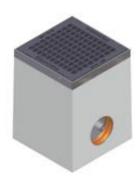


DRESDEN, WIENER PLATZ

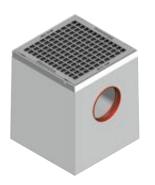
The Wiener Platz is the central traffic hub in Dresden. The different transport modes, such as railway, cars and buses, tramway, bicycles and wheelchairs are interlinked on different levels. For a visually appealing streetscape design of surfaces and façades, the FASERFIX POINT yard gullies and FASERFIX SUPER channels were fitted with custom-fabricated stainless steel gratings. A special request from the client and architects was the narrow mesh size of the gratings that provides better safety for pedestrians, cyclists and wheelchair users and prevents the ingress of coarser dirt items into the drainage system. The effect adds to the harmonious overall design that does justice to the outstanding architecture.



FASERFIX®POINT SUPER 30/30



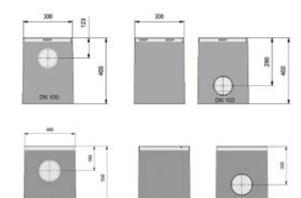
with GUGI-Ductile iron mesh grating MW 20/30, black

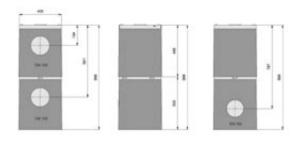


One piece with GUGI-Ductile iron mesh grating MW 20/30, black



Two piece with GUGI-Ductile iron mesh grating MW 20/30, black





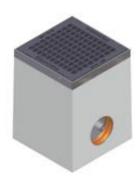
FASERFIX®POINT SUPER 30/30 - Point drain, class E 600

	Length mm	Width mm	Height mm	Weight kg	Article No.
with GUGI-Ductile iron mesh grating MW 20/30, black	300	300	400	43,7	4400
with GUGI-Guctile iron mesh grating MW 20/30, galvanised	300	300	400	44,1	4420

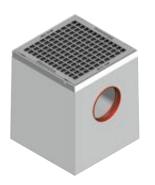
FASERFIX®POINT SUPER 40/40 - Point drain, class E 600

	Length mm	Width mm	Height mm	Weight kg	Article No.
One piece with GUGI-Ductile iron mesh grating MW 20/30, black	400	400	500	93,1	4700
Two piece with GUGI-Ductile iron mesh grating MW 20/30, black	400	400	988	154,1	4800
One piece with GUGI-ductile iron mesh grating MW 20/30, galvanised	400	400	500	94,0	4720
Two piece with GUGI-Ductile iron mesh grating MW 20/30, galvanised	400	400	988	155,0	4820
Extension part	400	400	438	58,5	4825

FASERFIX®POINT SUPER 30/30



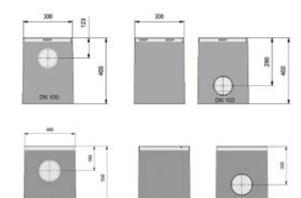
with GUGI-Ductile iron mesh grating MW 20/30, black

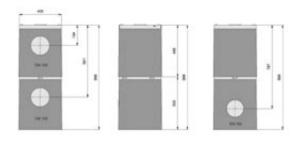


One piece with GUGI-Ductile iron mesh grating MW 20/30, black



Two piece with GUGI-Ductile iron mesh grating MW 20/30, black





FASERFIX®POINT SUPER 30/30 - Point drain, class E 600

	Length mm	Width mm	Height mm	Weight kg	Article No.
with GUGI-Ductile iron mesh grating MW 20/30, black	300	300	400	43,7	4400
with GUGI-Guctile iron mesh grating MW 20/30, galvanised	300	300	400	44,1	4420

FASERFIX®POINT SUPER 40/40 - Point drain, class E 600

	Length mm	Width mm	Height mm	Weight kg	Article No.
One piece with GUGI-Ductile iron mesh grating MW 20/30, black	400	400	500	93,1	4700
Two piece with GUGI-Ductile iron mesh grating MW 20/30, black	400	400	988	154,1	4800
One piece with GUGI-ductile iron mesh grating MW 20/30, galvanised	400	400	500	94,0	4720
Two piece with GUGI-Ductile iron mesh grating MW 20/30, galvanised	400	400	988	155,0	4820
Extension part	400	400	438	58,5	4825



LANDSCAPING

THE RANGE FOR DOMESTIC AND LANDSCAPING





THE RANGE FOR DOMESTIC AND LANDSCAPING INNOVATIVE PRODUCTS FOR GARDENING AND LANDSCAPING FOR IMAGINATIVE DESIGNS AND RELIABLE SURFACE DRAINAGE.

Garden and landscape design makes a significant contribution to the healthy and attractive qualities of our environment and helps bridge the gap between the built environment and nature. To preserve and sustain this balance, we need to think and act with the environment in mind including the use of ecologically orientated building materials and careful use of resources.

With its innovative range of surface drainage products, HAURATON makes an important contribution. For example, the material RECYFIX consists of 100% recycled PE-PP. All products are easy to transport and install and yet are extremely rugged. With its RECYFIX range, HAURATON is the leading supplier of drainage channels made of PE-PP – a range that meets all aesthetic and functional criteria.

HAURATON will cooperate with landscape architects and designers and will support the construction process with initial measuring up through to installation and completion. We provide detailed installation instructions as well as on-site service to make sure the LANDSCAPING solution achieves the perfect result. HAURATON plans and prepares the installation process in-house before going on site. An effective and sophisticated logistics concept ensures that we can deliver anywhere within a short time frame - just in time for the products to be installed on site without delay, giving contractors the assurance that their project schedules will not be interrupted.

Our LANDSCAPING products always reflect the latest state of technology and comply with all standards and regulations. In addition, HAURATON involves external monitoring of products and internal processes – our customers' guarantee for reliable design and long-lasting solutions.





PERFECT SUPPORT FOR YOUR DESIGNS



RECYFIX®PLUS STABLE DRAINAGE

RECYFIX[®]STANDARD ENVIRONMENTALLY FRIENDLY DRAINAGE

SLOTTED CHANNELS UNOBTRUSIVE DESIGN - LARGE DRAINAGE CAPACITY



FASERFIX®STANDARD RELIABLE DRAINAGE

RECYFIX®POINT FASERFIX®POINT POINT DRAINAGE



DACHFIX® PERFECT DRAINAGE FOR FAÇADES AND FLAT ROOFS



RECYFIX[®]GREEN SUPER VERY STRONG AND ENVIRONMENTALLY FRIENDLY



RECYFIX® GREEN STANDARD ENVIRONMENTALLY FRIENDLY, LIGHT AND ROBUST



RECYFIX[®]STREIF FOR CLEANER ENTRANCES



LINEFIX[®] FOR FLEXIBLE BORDER EDGING

SPECIAL SEE THE RE

SPECIAL SOLUTIONS SEE THE RESPECTIVE PRODUCT SECTIONS

PERFECT SUPPORT FOR YOUR DESIGNS

A SUPERIOR DRAINAGE SYSTEM STARTS AT THE DESIGN PHASE. WE PROVIDE COM-PETENT SUPPORT, INCLUDING CALCULATIONS FOR THE HYDRAULIC SPECIFICATION, LAY OUT PLANS FOR DRAINAGE CHANNELS OR CUSTOM-DESIGNED SOLUTIONS.

USE OUR EXPERTISE TO YOUR BEST ADVANTAGE

Our internal and external sales staff are truly experts in the design of drainage systems. Their extensive technical and product knowledge is your guarantee for expert consulations - and hence the best possible solution for all requirements. We will support your individual building project from project-related tender documents through to production and in-time delivery on site - even where the brief calls for unusual duties and design.

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Hydraulische Berechnung der Rinnenkapazität		Hauraton Ummi 4 Car KQ Ummi 4 Car KQ D. Nation 4 K and 4 D. Nation 4 K and 4 National Control (Control (Co
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We will produce free-of-charge hydraulic calculations to determine the channel capacity for.

NON-STANDARD PARTS - CUSTOM-DESIGNED TO YOUR REQUIREMENTS

Not all drainage situations can be resolved with the standard production range of products. For this reason we produce non-standard parts in accordance with customers' specifications. In that way a perfect solution can be found for all situations.

RELIABLE DESIGN DATA BASED ON HYDRAULIC CALCULATIONS

All projects have their own specific requirements which need to be matched by individual drainage systems. In order to be able to assess your project professionally regarding type and scope, we will calculate the hydraulic requirements for you free of charge. The staff at our CAD department just need a few data such as the size of the area to be drained, surface covering, intensity of rainfall, type of channels, etc. - just talk to one of our internal or field sales staff!

DETAILED INSTALLATION PLANS WITH COMPLETE PARTS LIST

In addition, we will produce a detailed installation plan for your project. The CAD-produced drawings show the exact location of drainage channels, including the positions of end caps, TRASH BOXes and other fittings. They will also include a complete parts list including the quantity and designation of the required products. These installation plans are provided by us also free of charge.

OUR ADVANTAGES FOR THE DESIGNER

20

2

🗹 Reliable design input

ellwinkelmauer mit Za_{un}

🗹 Individual design support

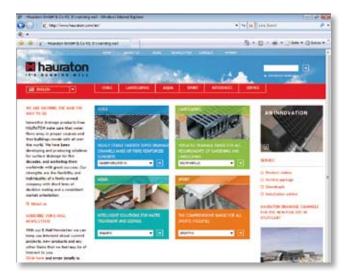
- Calculation of hydraulic requirements
- free of charge
- Layout plans produced by us free of charge

via the Internet:

- Practical help for downloading
- Comprehensive reference database

HAURATON IN THE INTERNET

Visit www.hauraton.com where you can find all required information: product information with picture documentation, always up to date, tender proposals for downloading, a comprehensive reference database with numerous projects throughout Europe and a tool for you to compile and print out or save your individual catalogue. There is a fast and competent online service to respond to your enquiries at any time.



RELIABLE PRODUCTS FOR YOUR DESIGNS

ALL HAURATON PROCESSES AND PRODUCTS ARE STRICTLY MONITORED. THAT IS HAURATON'S GUARANTEE TO ITS CUSTOMERS TO ENSURE A HIGHLY RELIABLE PRODUCT.

DIN EN 1433 / CE-MARK HAURATON CHANNELS COMPLY WITH DIN EN 1433

- U-profiles for highly efficient drainage with self-cleaning effect
- □ long-life seals easy to apply
- □ tongue and groove connection for precise installation
- maximum resistance to the effects of salt and weather, including frost
- different depths for long drainage runs with varying degrees of fall
- built-in fall of 0.6% for improved hydraulics and fast drainage speed
- large back-pressure volume through construction depths of up to 280 mm
- large selection of gratings for all types of applications and visual requirements

HAURATON one of the largest ranges of DIN-compliant drainage channels.

QUALITY CERTIFICATION IN ACCORDANCE WITH DIN EN ISO 9001:2000

As one of the first companies in the building industry, HAURATON achieved quality certification in accordance with DIN EN ISO 9001 back in 1993. Since then, quality standards have been driven up continuously, including regular certification.

The quality requirements of DIN EN ISO 9001:2000 cover not only the products but the whole company, including development, design, production, assembly and customer service. HAURATON's quality management in accordance with DIN EN ISO 9001:2000 provides the highest degree of reliability and safety to our customers.





RECYFIX®CHANNELS



AT A GLANCE

- Easy to handle due to low weight
- 🗹 100% recyclable
- ✓ Made of pure recycled PE-PP
- Highly chemical-resistant
- Leakproof and UV-stabilised

STANDARDS, APPROVALS AND WARRANTY

HAURATON channels are not only certified in accordance with DIN EN 1433 but also with the considerably more stringent German DIN V 19580. CE-mark, external monitoring and conformity statement are guarantees for the designer that ensure the highest technical standard. The channels are frost and salt resistant and completely watertight, this combined with their robust construction ensures that they will provide many years of service. HAURATON was one of the first manufacturers in the building industry to voluntarily offer a guarantee period of 5 years.

For a number of FASERFIX SUPER channels and FASER-FIX BIG channels we also hold a General Building Control Approval by the DIBt (German Institute for Building Technology) for special applications in industrial locations where liquids that are hazardous to water as per §19 WHG (Water Resources Act) are handled, stored or decanted, such as tank installations. For further details please consult the **CIVILS catalogue.**





RECYFIX PE-PP is the basis for many rugged and durable products for many areas of application.



RECYFIX® PRO

INNOVATIVE DRAINAGE SYSTEM MADE OF PE-PP AND PA-GF FOR DOMESTIC AND COMMERCIAL APPLICATIONS UP TO LOADING CLASS C 250



RECYFIX®PRO INNOVATIVE DRAINAGE SYSTEM MADE OF PE-PP AND PA-GF FOR DOMESTIC AND COMMERCIAL APPLICATIONS UP TO LOADING CLASS C 250

RECYFIX®PRO channels meet the requirements of DIN EN 1433 and are suitable for the following loading capacities:

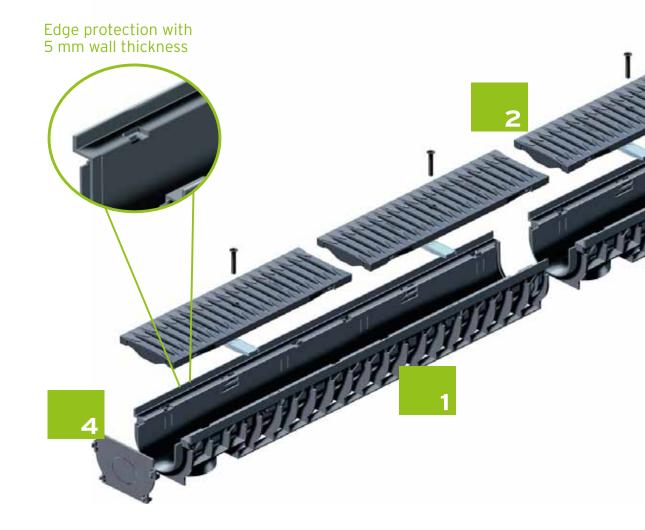


CATEGORY B 125, LOAD CLASS 125 KN



CATEGORY C 250,





GRATING OPTIONS FOR RECYFIX®PRO CHANNELS

GUGI-Grating made of PA-GF, MW 20/30,black



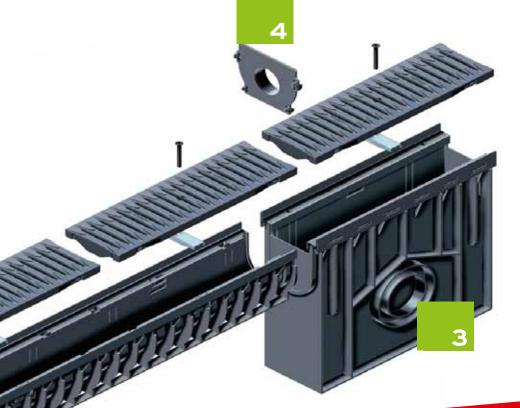
FIBRETEC[®] Slotted grating, SW 9 mm, black



Classe de charge	
B 125	100
C 250	

100





AT A GLANCE

- Channel made of PE-PP and grating made of high-quality PA-GF (Polyamide)
- ☑ drainage system according EN 1433 up to
- loading capacity C 250
- 🗹 lightweight, robust and easy to install



Channels made of PE-PP, according DIN V 19580 / EN 1433, CE-conform, with tongue and groove connection

■ FIBRETEC[®] Slotted grating, SW 9 mm, black

3 Trash box with pipe-connection possibilities



End caps with or without outlet

CIVILS

LANDSCAPING

AQUA

FIBRETEC[®] SLOTTED GRATING INNOVATIVE GRATING MADE OF PA-GF FOR RECYFIX PRO

CORROSSION-FREE, WITH OPTIMISED HYDRAULICS AND UNIQUE DESIGN



AT A GLANCE

- corrossion-free
- optimised hydraulics
- 🗹 unique design



Evolutionary history of the unique FIBRETEC® Slotted grating:



"The basis of our product development always starts by listening to our customers. They asked for innovative ideas to solve the topic of corrossion once and for all. That's why we started to search for ideas." Dieter Bastian Sales Director HAURATON



"Several high quality synthetic materials were tested. Finally the result was something that even exceeded our requirements."

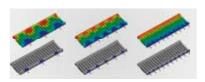
Prof. Dr. Jürgen Gundrum Director of STZ IKET



"The structure of the bottom side of the grating was crucial to the fstability, where a lot of time was invested."

Prof. Dr. Ing. Bernhard Rief STZ IKET





"How many direct gatings? The results of the Mould-Flow-Study showed us how to construct the injection-moulding-tool in the best way."

Dipl. Ing. Karl Radimersky Chief Construction HAURATON



"Only the **loading and hydraulic tests** really proved that all functions and parameter were 100% fulfilled."

Dr. Bernd Schiller Head of Research & Development HAURATON

RECYFIX®PRO

INNOVATIVE DRAINAGE SYSTEM MADE OF PE-PP AND PA-GF FOR DOMESTIC AND COMMERCIAL APPLICATIONS UP TO LOADING CLASS C 250

RECYFIX®PRO 100 - combi article, class B 125



Type 75 with GUGI-Grating made of PA-GF, MW 20/30, black, locked Type 01 with GUGI-Grating made of PA-GF, MW 20/30, black, locked Type 010 with GUGI-Grating made of PA-GF, MW 20/30, black, locked

	Length mm	Width mm	Height mm	Weight kg	Unit / palette	Article No.
Type 75 with GUGI-Grating made of PA-GF, MW 20/30, black, locked	1000	160	75	2,9	84	47032
Type 95 with GUGI-Grating made of PA-GF, MW 20/30, black, locked	1000	160	95	3,0	-	47033
Type 01 with GUGI-Grating made of PA-GF, MW 20/30, black, locked	1000	160	151	4,1	49	47035
Type 0105 with GUGI-Grating made of PA-GF, MW 20/30, black, locked	500	160	151	2,1	98	47036
Type 010 with GUGI-Grating made of PA-GF, MW 20/30, black, locked	1000	160	201	4,7	35	47040
Type 01005 with GUGI-Grating made of PA-GF, MW 20/30, black, locked	500	160	201	2,5	70	47041



Type 95 with FIBRETEC Slotted grating, SW 9 mm, black, locked

Type 01 with FIBRETEC Slotted grating, SW 9 mm, black, locked

Type 010 with FIBRETEC Slotted grating, SW 9 mm, black, locked

	Length mm	Width mm	Height mm	Weight kg	Unit / palette	Article No.
Type 75 with FIBRETEC Slotted grating, SW 9 mm, black, locked	1000	160	75	2,9	84	47062
Type 95 with FIBRETEC Slotted grating, SW 9 mm, black, locked	1000	160	95	3,3	-	47063
Type 01 with FIBRETEC Slotted grating, SW 9 mm, black, locked	1000	160	151	4,1	49	47055
Type 0105 with FIBRETEC Slotted grating, SW 9 mm, black, locked	500	160	151	2,1	98	47056
Type 010 with FIBRETEC Slotted grating, SW 9 mm, black, locked	1000	160	201	4,6	35	47060
Type 01005 with FIBRETEC Slotted grating, SW 9 mm, black, locked	500	160	201	2,3	70	47061



RECYFIX[®]PRO 100 - accessories



Trash box with GUGI-Grating made of PA-GF, MW 20/30, black, locked



Trash box with FIBRETEC Slotted grating, SW 9 mm, black, locked



End cap closed, made of PE-PP, for type 75



End cap combined, made of PE-PP, with outlet DN 100, for type 01



End cap combined, made of PE-PP, with outlet DN 70/100, for type 010

	Length mm	Width mm	Height mm	Weight kg	Unit / palette	Article No.
Trash box with GUGI-Grating made of PA-GF, MW 20/30, black, locked	500	160	438	4,9	28	47053
Trash box with FIBRETEC Slotted grating, SW 9 mm, black, locked	500	160	438	5,0	28	47054
End cap closed, made of PE-PP, for type 75	-	-	-	0,03	-	47097
End cap closed, made of PE-PP, for type 95*	-	-	-	0,04	-	47098
End cap combined, made of PE-PP, with outlet DN 100, for type 01	-	-	-	0,10	-	47091
End cap combined, made of PE-PP, with outlet DN 70/100, for type 010	-	-	-	0,11	-	47093

* available from middle of September 2010

STABLE DRAINAGE. WITH EDGE PROTECTION AND ATTRACTIVE DESIGN.







AQUA

RECYFIX®PLUS

STABLE DRAINAGE. WITH EDGE PROTECTION AND ATTRACTIVE DESIGN.

THE ECOLOGICAL INNOVATION

RECYFIX PLUS channels consist of 100 % pure recycled polyolefine plastics. They can be integrated into the ecological material cycle and are 100 % recyclable. Green light for the environment! Because of their low weight, RECYFIX PLUS channels are easy to transport and install. At the same time, the system complies with the highest requirements regarding functionality and strength. RECYFIX PLUS channels have been developed for traffic areas exposed to high loads. An additional protection is provided by galvanised steel angle housings covering the top edges. The RECYFIX PLUS channel system is a complete system with all necessary accessories.

HIGH-TECH DEVELOPMENT

RECYFIX PLUS channels have been developed in cooperation with a well-known research institute for plastic recycling. With the help of computer simulation it was possible to create a highly rigid construction with torsionfree ribs, which weighs significantly less than conventional channels made of mineral-based materials but has good performance characteristics and durability.

RECYCLED PE-PP MATERIAL

RECYFIX PLUS channels consist of 100 % pure recycled polyolefine plastics. The material is characterised by its high chemical resistance, resistance to frost and salt, it is UV-stabilised, environmentally neutral and leakproof.

DIN EN 1433

All RECYFIX PLUS channels meet the requirements of the European standard DIN EN 1433. The products carry the CE-mark.



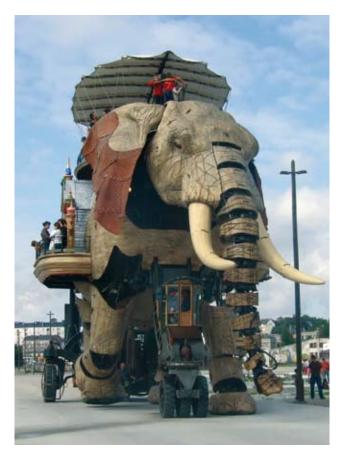
Installation in polygonal patterns



Parking area

A COMPREHENSIVE SYSTEM

RECYFIX PLUS channels are available in different heights and nominal widths. Canal connections are possible at the bottom, on the sides or ends. A choice of channel gratings is available to suit different surface finishes and load applications. The system is rounded off with end caps, foul air locks for vertical outlet and trash boxes with plastic mud bucket - optionally with internal foul air trap.





DACHFIX®

STABLE DRAINAGE.

WITH EDGE PROTECTION AND ATTRACTIVE DESIGN.

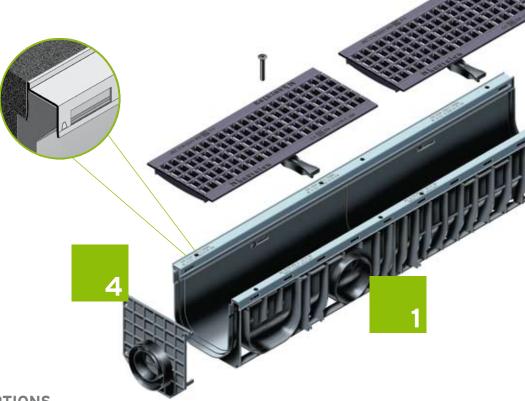
RECYFIX®PLUS channels meet the requirements of DIN EN 1433 and are suitable for the following loading capacities:



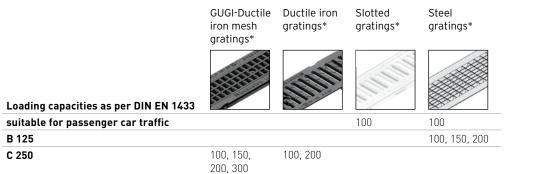
CATEGORY A 15, LOAD CLASS 15 KN

CATEGORY B 125, LOAD CLASS 125 KN

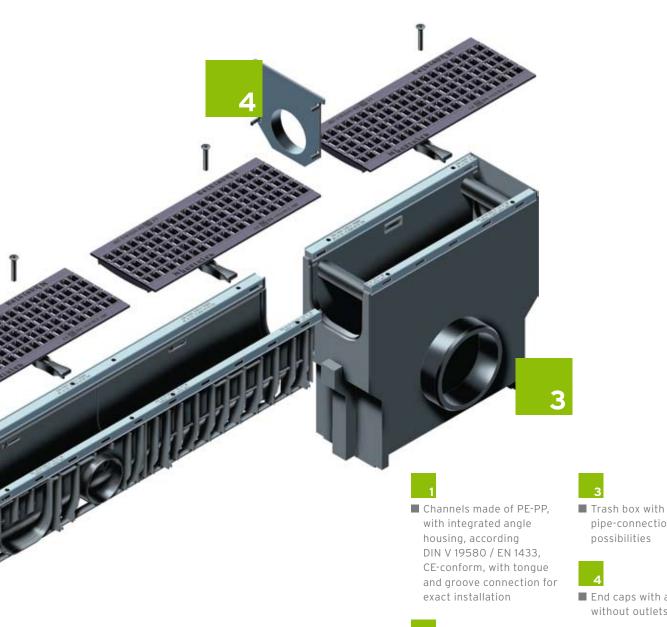
CATEGORY C 250, LOAD CLASS 250 KN



GRATING OPTIONS FOR RECYFIX PLUS CHANNELS



* nominal width





numerous grating options, for exemple GUGI-Ductile iron mesh gratings

pipe-connection

End caps with and without outlets

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

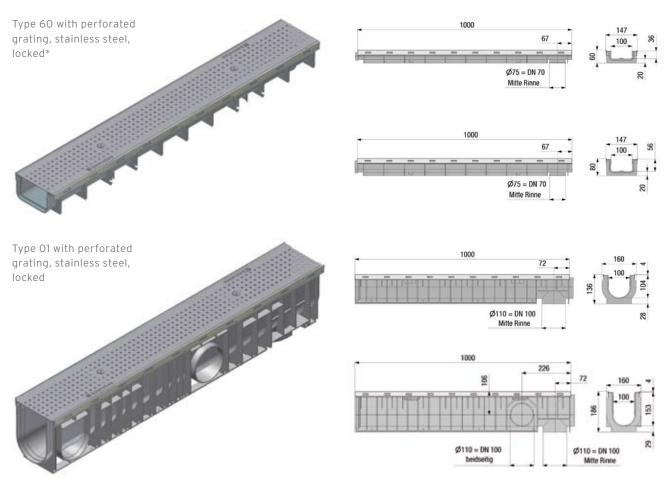
LINEFIX®

SAFETY IN PEDESTRIAN ZONES

RECYFIX PLUS channels with their great choice of gratings are also used in pedestrian zones, on market squares and other public areas. To provide greater safety for pedestrians, gratings with narrow mesh sizes have been developed.



RECYFIX®PLUS 100 - Combi article, class A 15

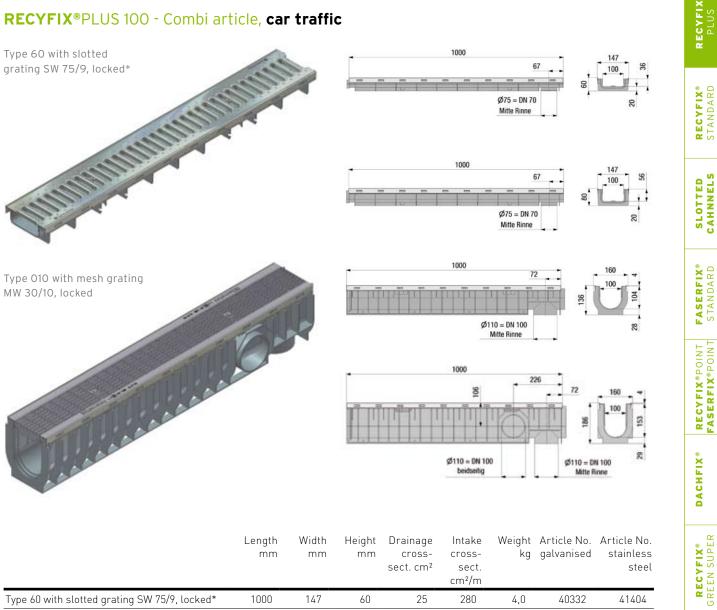


	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Intake cross- sect. cm²/m	5	Article No. galvanised	Article No. stainless steel
Type 60 with perforated grating, stainless steel, locked*	1000	147	60	25	161	3,9	-	41444
Type 80 with perforated grating, stainless steel, locked*	1000	147	80	45	161	4,1	-	41446
Type 01 with perforated grating, stainless steel, locked	1000	160	135	92	161	5,5	-	41440
Type 010 with perforated grating, stainless steel, locked	1000	160	185	142	161	6,4	-	41442
Type 0105 with perforated grating, stainless steel, locked	500	160	135	92	161	2,8	-	41447
Type 01005 with perforated grating, stainless steel, locked	500	160	185	142	161	3,2	-	41448

Hauraton

RECYFIX®PLUS 100

RECYFIX®PLUS 100 - Combi article, car traffic



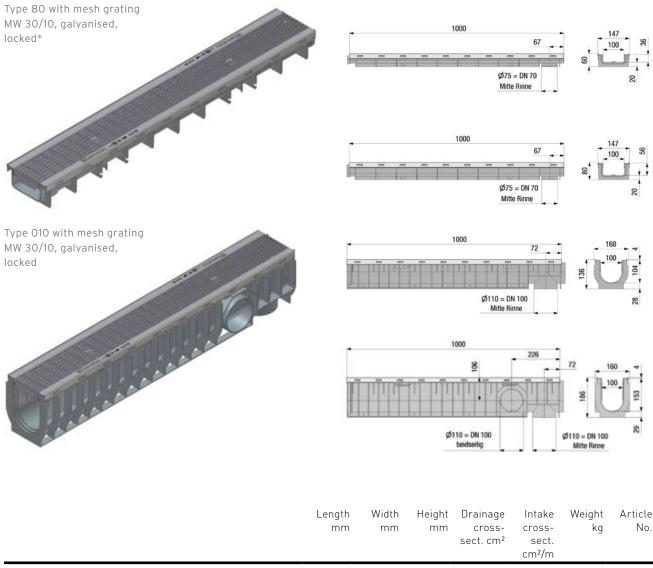
	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Intake cross- sect. cm²/m	Weight kg	Article No. galvanised	Article No. stainless steel
Type 60 with slotted grating SW 75/9, locked*	1000	147	60	25	280	4,0	40332	41404
Type 80 with slotted grating SW 75/9, locked*	1000	147	80	45	280	4,1	40337	41406
Type 60 with mesh grating MW 30/10, locked*	1000	147	60	25	650	5,2	40333	41414
Type 80 with mesh grating MW 30/10, locked*	1000	147	80	45	650	5,3	40338	41416
Type 01 with slotted grating SW 75/9, locked	1000	160	135	92	280	5,3	40344	41400
Type 0105 with slotted grating SW 75/9, locked	500	160	135	92	280	2,8	40347	41407
Type 010 with slotted grating SW 75/9, locked	1000	160	185	142	280	6,3	40339	41402
Type 01005 with slotted grating SW 75/9, locked	500	160	185	142	280	3,2	40341	41408
Type 01 with mesh grating MW 30/10, locked	1000	160	135	92	650	6,5	40346	41410
Type 0105 with mesh grating MW 30/10, locked	500	160	135	92	650	3,4	40348	41417
Type 010 with mesh grating MW 30/10, locked	1000	160	185	142	650	7,5	40340	41412
Type 01005 with mesh grating MW 30/10, locked	500	160	185	142	650	3,8	40343	41418

The quality of the stainless steel material is according CNS 1.4301.

RECYFIX® GREEN STANDARD

RECYFIX® STREIF

RECYFIX®PLUS 100 - Combi article, class B 125



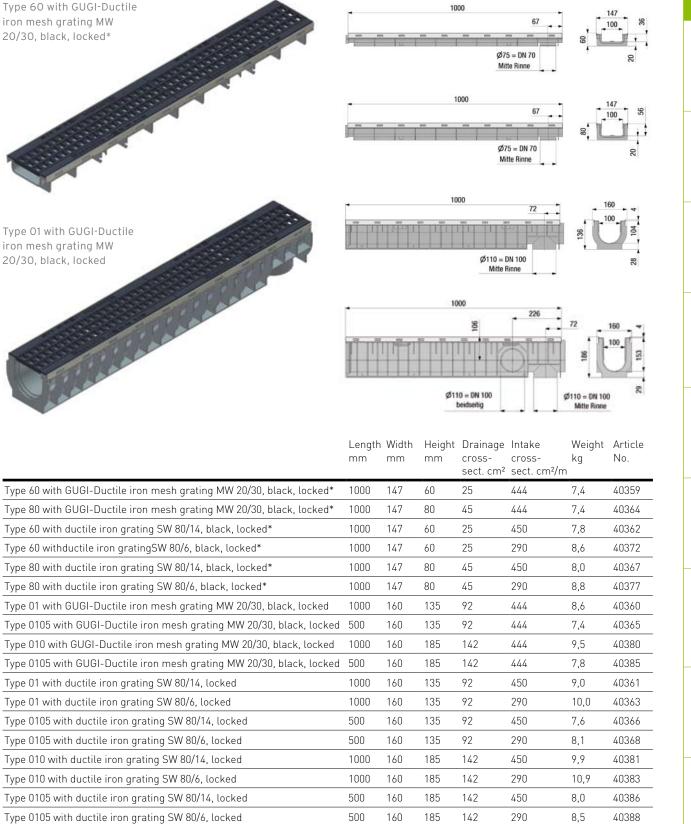
Type 60 with mesh grating MW 30/10, galvanised, locked*	1000	147	60	25	650	6,0	41424
Type 80 with mesh grating MW 30/10, galvanised, locked*	1000	147	80	45	650	6,2	41426
Type 01 with mesh grating MW 30/10, galvanised, locked	1000	160	135	92	650	7,5	41420
Type 0105 with mesh grating MW 30/10, galvanised, locked	500	160	135	92	650	4,0	41427
Type 010 with mesh grating MW 30/10, galvanised, locked	1000	160	185	142	650	8,5	41422
Type 01005 with mesh grating MW 30/10, galvanised, locked	500	160	185	142	650	4,4	41428

* For common frequented areas we recommend FASERFIX SUPER KS channels, flat (catalogue CIVILS).

Hauraton

RECYFIX®PLUS 100

RECYFIX®PLUS 100 - Combi article, class C 250



* For common frequented areas we recommend FASERFIX SUPER KS channels, flat (catalogue CIVILS).

RECYFIX® STREIF

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT

DACHFIX®

RECYFIX® GREEN SUPER

RECYFIX® GREEN STANDARD

LINEFIX®

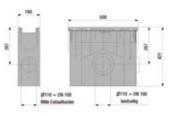
RECYFIX®PLUS 100 - Accessories



Trash box with plastic bucket, with GUGI-Ductile iron mesh grating MW 20/30, black, class C 250, locked



Trash box with plastic bucket, with ductile iron grating SW 80/14, black, class C 250, locked







Foul air trap, vertical, DN 100 Foul air trap DN 100, inside



End cap combined made of PE-PP with outlet DN 70, type 01



End cap combined made of PE-PP with outlet DN 70, type 010

	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised s	Article No. stainless steel
Trash box with plastic bucket, with slotted grating SW 75/6, trafficable, locked	500	160	419	4,8	40353	41409
Trash box with plastic backed, with slotted grating SW 75/6, trafficable, locked	500	160	419	5,4	40354	41419
Trash box with plastic-bucket, with mesh grating MW 30/10, class B 125, locked	500	160	419	6,2	41429	-
Trash box with plastic bucket, with GUGI-Ductile iron mesh grating MW 20/30, black, class C 250, locked	500	160	419	6,6	40358	-
Trash box with plastic bucket, with ductile iron grating SW 80/14, black, class C 250, locked	500	160	419	6,8	40356	-
Trash box with plastic bucket, with ductile iron grating SW 80/6, black, class C 250, locked	500	160	419	7,3	40357	-
Trash box with plastic-bucket, with perforated grating, stainless steel, car-traffic, locked	500	160	419	5,1	-	41449
Foul air trap, vertical, DN 100	-	-	-	0,5	40295	-
Foul air trap DN 100, inside	-	-	-	0,2	40290	-
End cap closed, made of PE-PP, for type 60	-	147	60	-	40284	-
End cap closed, made of PE-PP, for Type 80	-	147	80	-	40291	-
End cap combined made of PE-PP with outlet DN 70, type 01	-	160	135	0,1	40281	-
End cap combined made of PE-PP with outlet DN 70, type 010	-	160	185	0,2	40283	-
Drilling of connecting holes DN 100	-	-	-	-	972	-
Cutting to length of NW 100	-	-	-	-	990	-
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890	-
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891	

The quality of the stainless steel material is according CNS 1.4301.

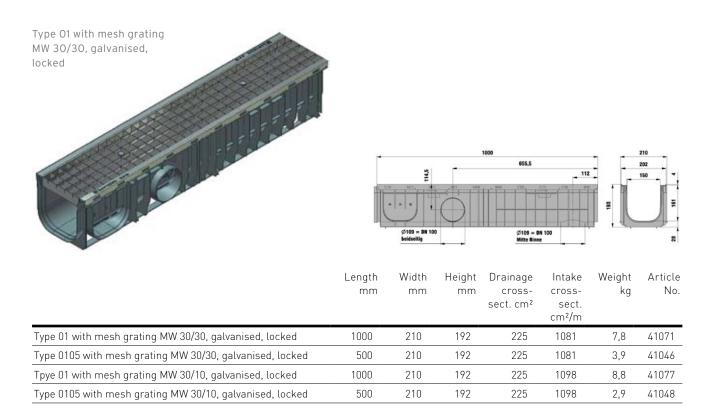


RECYFIX® PLUS
RECYFIX® STANDARD
SLOTTED CAHNNELS
FASERFIX ® STANDARD
RECYFIX®POINT FASERFIX®POINT
DACHFIX®
a
RECYFIX® Greensuper
RECYFIX® Green super

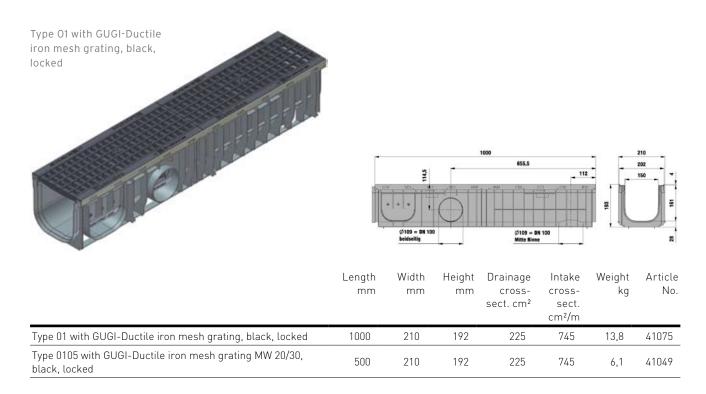
AQUA

RECYFIX®PLUS 150

RECYFIX®PLUS 150 - Combi article, class B 125



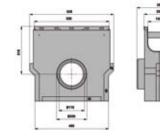
RECYFIX®PLUS 150 - Combi article, class C 250





RECYFIX®PLUS 150 - Accessories

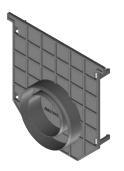






galvanised, class B 125, locked





Foul air trap, vertical, DN 100

End cap combined made of PE-PP with outlet DN 70/100, Type 01

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with galvanised bucket, with mesh grating MW 30/30, galvanised, class B 125, locked	500	202	496	18,6	41054
Trash box with galvanised bucket, with mesh grating MW 30/10, galvanised, class B 125, locked	500	202	496	18,6	41056
Trash box with galvanised bucket, with GUGI-Ductile iron mesh grating MW 20/30, galvanised, class C250 locked	500	202	496	20,7	41053
Foul air trap, vertical, DN 100	-	_	-	0,5	40295
End cap combined made of PE-PP with outlet DN 70/100, Type 01	_	210	202	0,1	40191
Drilling of connecting holes DN 150	-	-	-	-	973
Cutting to length of NW 150	-	-	-	-	991
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891

RECYFIX® GREEN STANDARD

RECYFIX® STREIF

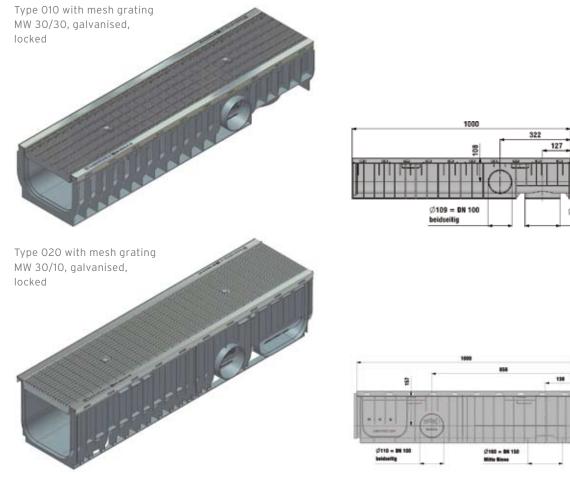
260

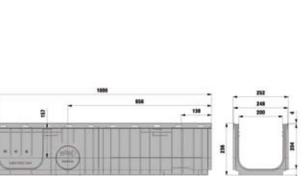
2

Ø160 = DN 150 Mitte Rinne

RECYFIX®PLUS 200

RECYFIX®PLUS 200 - Combi article, class B 125



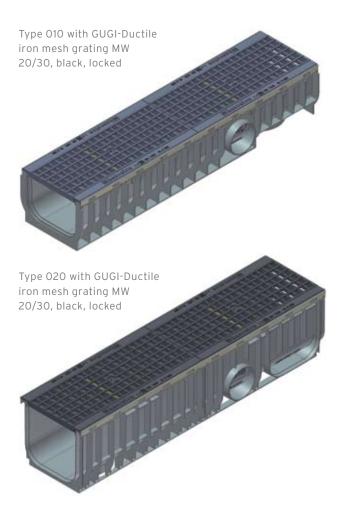


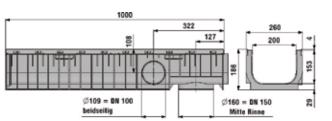
	Length mm	Width mm	Height D mm se	rainage cross- ect. cm²	Intake cross- sect. cm²/m	Weight kg	Article No.
Type 010 with mesh grating MW 30/30, galvanised, locked	1000	258	186	290	1620	10,3	40771
Type 020 with mesh grating MW 30/30, galvanised, locked	1000	252	236	366	1620	11,5	40773
Type 010 with mesh grating MW 30/10, galvanised, locked	1000	258	186	290	1442	12,2	40785
Type 020 with mesh grating MW 30/10, galvanised, locked	1000	252	236	366	1442	12,7	40786

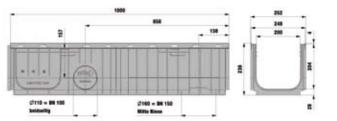


RECYFIX®PLUS 200

RECYFIX®PLUS 200 - Combi article, class C 250







	Length mm	Width mm	Height D mm s)rainage cross- ect. cm²	Intake cross- sect. cm²/m	Weight kg	Article No.
Type 010 with GUGI-Ductile iron mesh grating MW 20/30, black, locked	1000	258	186	290	825	16,6	40770
Type 020 with GUGI-Ductile iron mesh grating MW 20/30, black, locked	1000	252	236	366	825	17,2	40774
Type 010 with Ductile iron grating 2 x 85/20, black, locked	1000	258	186	290	822	16,2	40760
Type 020 with Ductile iron grating 2 x 85/20, black, locked	1000	252	236	366	822	16,8	40761

RECYFIX® PLIIS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT **FASERFIX**®POINT

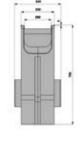
DACHFIX®

RECYFIX®PLUS 200

RECYFIX®PLUS 200 - Accessories









Trash box with ductile iron grating SW 2 x 85/20, black, cl. C 250, locked

End cap combined made of PE-PP with outlet DN 70, Type 010



Foul air trap, vertical, DN 100

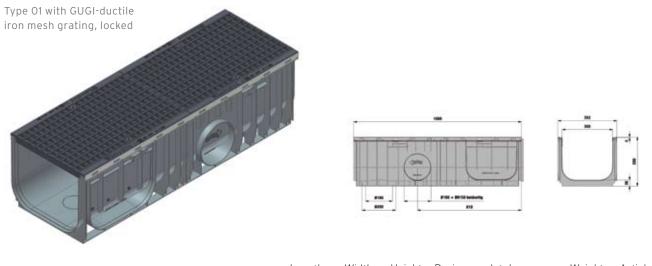
	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with mesh grating MW 30/30, galvanised, cl. B 125, locked	500	248	735	27,6	40756
Trash box with mesh grating MW 30/10, galvanised, cl. B 125, locked	500	248	735	29,2	40757
Trash box with GUGI-ductile iron grating MW 20/30, black, cl. C 250, locked	500	248	735	31,4	40753
Trash box with ductile iron grating SW 2 x 85/20, black, cl. C 250, locked	500	248	735	31,2	40754
Foul air trap, vertical, DN 100	-	-	-	0,5	40295
End cap combined made of PE-PP with outlet DN 70, Type 010	-	258	185	0,2	40692
End cap closed, Type 01	-	260	275	0,9	12081
Drilling of connecting holes DN 200	-	-	-	-	974
Cutting to length of NW 200	-	-	-	-	992
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891



RECYFIX® Plus
RECYFIX® Standard
SLOTTED Cahnnels
FASERFIX ® STANDARD
RECYFIX®POINT FASERFIX®POINT
DACHFIX®
RECYFIX® GREEN SUPER
RECYFIX® GREEN STANDARD
RECYFIX® STREIF
LINEFIX®

RECYFIX®PLUS 300

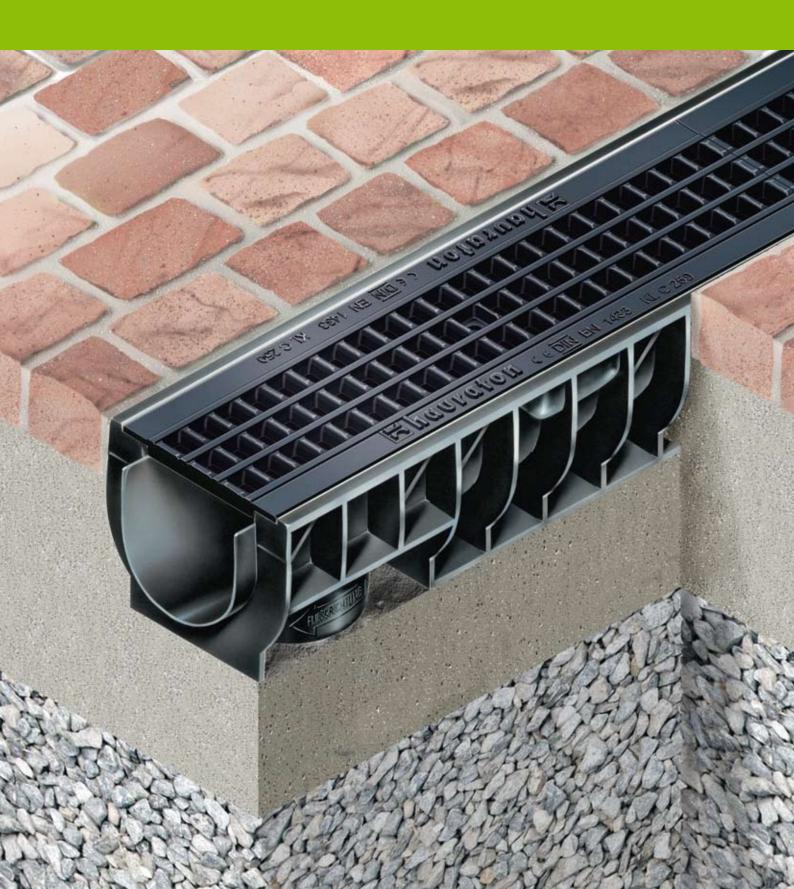
RECYFIX®PLUS 300 - Combi article, class C 250



	Length	Width	Height	Drainage	Intake cross-	Weight	Article
	mm	mm	mm	cross-	sect. cm²/m	kg	No.
				sect. cm²			
Type 01 with GUGI-ductile iron mesh grating, locked	1000	352	290	857	1327	30,1	41970

RECYFIX[®]STANDARD

ENVIRONMENTALLY FRIENDLY DRAINAGE. FOR DOMESTIC APPLICATIONS AND PEDESTRIAN AREAS.





AT A GLANCE

Easy and fast to install
 For domestic applications up to load class C 250
 Strength and function comply with DIN EN 1433

ENVIRONMENTALLY FRIENDLY DRAINAGE. FOR DOMESTIC APPLICATIONS AND PEDESTRIAN AREAS.

THE ECOLOGICAL INNOVATION

RECYFIX STANDARD channels consist of 100% pure recycled polyolefin plastics. They can be integrated into the ecological material cycle and are 100% recyclable. Green light for the environment! Because of their low weight, RECYFIX STANDARD channels are easy to transport and install. Nevertheless, in functionality and strength the system compares well with all conventional channel systems – a fact that has been proven in practice.

HIGH-TECH DEVELOPMENT

RECYFIX STANDARD channels have been developed in cooperation with a well-known research institute for plastic recycling. With the help of computer simulation it was possible to create a highly rigid construction with torsion-free ribs, which weighs significantly less than conventional channels made of mineral-based materials but has equally good performance characteristics and durability.

APPLICATION AREAS

- primarily private areas
- □ garage entrances
- □ yards
- terraces
- □ gardens
- parks



CHARACTERISTICS

- made of PE-PP
- □ up to load class C 250
- □ pre-formed vertical and lateral connections
- □ complies with DIN EN 1433

PRODUCT RANGE

- □ Trash boxes
- End caps
- □ Foul air traps
- Locking handles
- □ GUGI ductile iron mesh gratings
- Ductile iron gratings
- □ Slotted gratings
- Mesh gratings
- Perforated gratings
- Closed covers



RECYCLED PE-PP MATERIAL

RECYFIX STANDARD channels consist of 100 % pure recycled polyolefin plastics. The material is characterised by its high chemical resistance, resistance to frost and salt, it is UV-stabilised, environmentally neutral and leakproof.

DIN EN 1433

All RECYFIX STANDARD channels meet the requirements of the European standard DIN EN 1433. The products carry the CE-mark.

A COMPREHENSIVE SYSTEM

RECYFIX STANDARD channels are available in different heights and nominal widths. Canal connections are possible at the bottom, on the sides or ends. A choice of channel gratings is available to suit different surface finishes and load applications. The system is rounded off with end caps, foul air locks for vertical outlet and trash boxes with mud bucket - optionally with internal foul air trap. To achieve safety under the exposure to traffic the channel gratings are locked to the base segment. RECYFIX® PLUS

RECYFIX

SLOTTED CAHNNELS

FASERFIX® Standard



It is very easy to cut RECYFIX STANDARD channels on site – e.g. mitred cuts, corner joints and channels cut to length.



CASTRIES, Médiathèque, France

ENVIRONMENTALLY FRIENDLY DRAINAGE. FOR DOMESTIC APPLICATIONS AND PEDESTRIAN AREAS.

RECYFIX STANDARD channels meet the requirements of DIN EN 1433 and are suitable for the following loading capacities:



CATEGORY A 15, LOAD CLASS 15 KN

CATEGORY B 125, LOAD CLASS 125 KN

CATEGORY C 250, LOAD CLASS 250 KN



GRATING OPTIONS FOR RECYFIX STANDARD CHANNELS

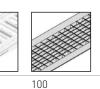
iron mesh gratings*

GUGI-Ductile Ductile iron gratings*

Slotted gratings*

100

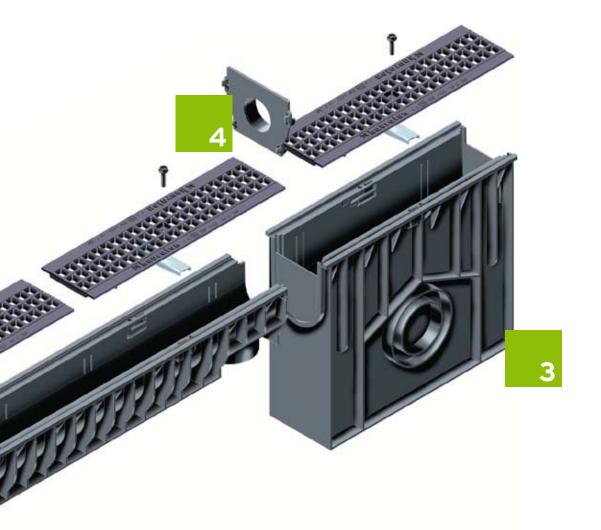
Steel mesh gratings*



Loading capacities as per DIN EN 1433

B 125			100, 150, 200
C 250	100, 150,	100, 200	
	200, 300		

* nominal width



Channels made of PE-PP, according DIN V 19580 / EN 1433, CE-conform, with tongue and groove connection for exact installation

2

numerous grating options, for exemple GUGI-Ductile iron mesh gratings

Trash box with pipeconnection possibilities



 \blacksquare end caps with and without outlets

RECYFIX® PLUS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

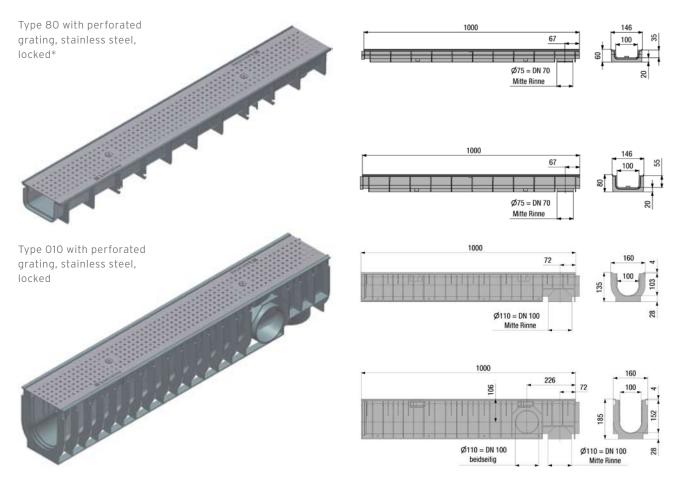
RECYFIX®POINT FASERFIX®POINT

DACHFIX®

RECYFIX® STREIF

LINEFIX®

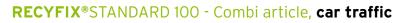
RECYFIX®STANDARD 100 - Combi article, class A 15

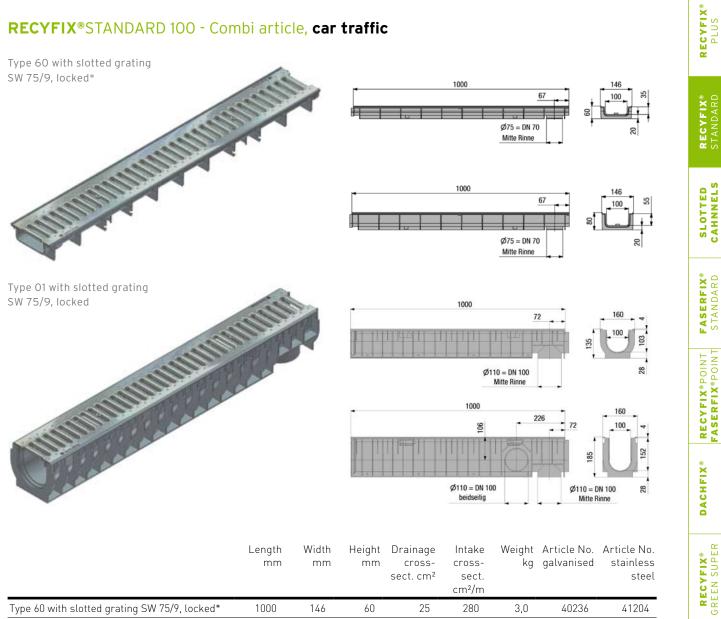


	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Intake cross- sect. cm²/m	Weight kg	Article No. galvanised	Article No. stainless steel
Type 60 with perforated grating, stainless steel, locked*	1000	146	60	25	161	2,9	-	41244
Type 80 with perforated grating, stainless steel, locked*	1000	146	80	45	161	3,1	-	41246
Type 01 with perforated grating, stainless steel, locked	1000	160	135	92	161	4,5	-	41240
Type 010 with perforated grating, stainless steel, locked	1000	160	185	142	161	5,4	-	41242
Type 0105 with perforated grating, stainless steel, locked	500	160	135	92	161	2,3	-	41247
Type 01005 with perforated grating, stainless steel, locked	500	160	185	142	161	2,7	-	41248

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RECYFIX®STANDARD 100





	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Intake cross- sect.	Weight kg	Article No. galvanised	Article No. stainless steel
				Sect. cm	cm²/m			Sieei
Type 60 with slotted grating SW 75/9, locked*	1000	146	60	25	280	3,0	40236	41204
Type 80 with slotted grating SW 75/9, locked*	1000	146	80	45	280	3,1	40246	41206
Type 60 with mesh grating MW 30/10, locked*	1000	146	60	25	650	4,2	40237	41214
Type 80 with mesh grating MW 30/10, locked*	1000	146	80	45	650	4,3	40247	41216
Type 01 with slotted grating SW 75/9, locked	1000	160	135	92	280	4,4	40231	41200
Type 0105 with slotted grating SW 75/9, locked	500	160	135	92	280	2,2	40261	41207
Type 010 with slotted grating SW 75/9, locked	1000	160	185	142	280	5,3	40296	41202
Type 01005 with slotted grating SW 75/9, locked	500	160	185	142	280	2,6	40266	41208
Type 01 with mesh grating MW 30/10, locked	1000	160	135	92	650	5,2	40232	41210
Type 0105 with mesh grating MW 30/10, locked	500	160	135	92	650	2,6	40262	41217
Type 010 with mesh grating MW 30/10, locked	1000	160	185	142	650	6,6	40297	41212
Type 01005 with mesh grating MW 30/10, locked	500	160	185	142	650	3,2	40267	41218

The quality of the stainless steel material is according CNS 1.4301.

RECYFIX® GREEN STANDARD

RECYFIX® STREIF

RECYFIX®STANDARD 100 - Combi article, class B 125

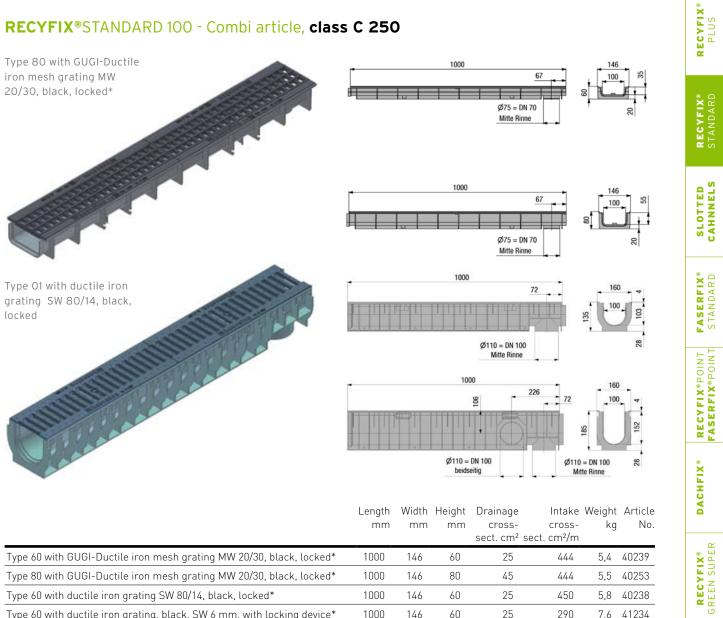


* For common frequented areas we recommend FASERFIX SUPER KS channels, flat (catalogue CIVILS).

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RECYFIX®STANDARD 100

RECYFIX®STANDARD 100 - Combi article, class C 250



Type 60 with GUGI-Ductile iron mesh grating MW 20/30, black, locked*	1000	146	60	25	444	5,4	40239
Type 80 with GUGI-Ductile iron mesh grating MW 20/30, black, locked*	1000	146	80	45	444	5,5	40253
Type 60 with ductile iron grating SW 80/14, black, locked*	1000	146	60	25	450	5,8	40238
Type 60 with ductile iron grating, black, SW 6 mm, with locking device*	1000	146	60	25	290	7,6	41234
Type 80 with ductile iron gating SW 80/14, black, locked*	1000	146	80	45	450	5,9	40248
Type 80 with ductile iron grating, black, SW 6 mm, with locking device*	1000	146	80	45	290	7,7	41236
Type 01 with GUGI-Ductile iron mesh grating MW 20/30, black, locked	1000	160	135	92	449	7,7	40234
Type 0105 with GUGI-Ductile iron mesh grating MW 20/30, black, locked	500	160	135	92	444	3,8	40264
Type 010 with GUGI-Ductile iron mesh grating MW 20/30, black, locked	1000	160	185	142	444	8,6	40299
Type 01005 with GUGI-Ductile iron mesh grating MW 20/30, black, locked	500	160	185	142	444	4,2	40269
Type 01 with ductile iron grating SW 80/14, black, locked	1000	160	135	92	450	8,2	40233
Type 01 with ductile iron grating, SW 6 mm, locked	1000	160	135	92	290	9,2	41230
Type 0105 with ductile iron grating SW 80/14, black, locked	500	160	135	92	450	4,1	40263
Type 0105 with ductile iron grating, black, SW 6 mm, locked	500	160	135	92	290	4,6	41237
Type 010 with ductile iron grating SW 80/14, black, locked	1000	160	185	142	450	9,1	40298
Type 010 with ductile iron grating, SW 6 mm, locked	1000	160	185	142	290	10,1	41232
Type 01005 with ductile iron grating SW 80/14, black, locked	500	160	185	142	450	4,5	40268
Type 01005 with ductile iron grating, black, SW 6 mm, locked	500	160	185	142	290	5,0	41238

* For common frequented areas we recommend FASERFIX SUPER KS channels, flat (catalogue CIVILS).

RECYFIX® STREIF

RECYFIX® GREEN STANDARD

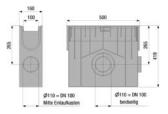
RECYFIX®STANDARD 100 - Accessories



Trash box with plastic bucket, slotted grating, SW 75/9, trafficable, locked



Trash box with plastic bucket, ductile iron grating SW 80/14, black, class C 250, locked







Foul air trap, vertical, DN 100 Foul air trap DN 100, inside



End cap combined made of PE-PP with outlet DN 70, type 01



End cap combined made of PE-PP with outlet DN 70, type 010

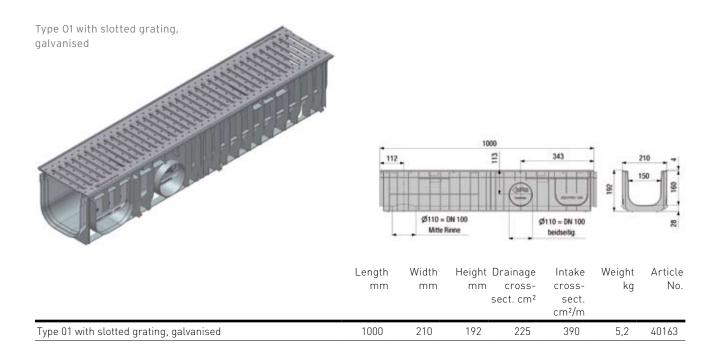
	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised	Article No. stainless steel
Trash box with plastic bucket, slotted grating, SW 75/9, trafficable, locked	500	160	419	4,3	40256	41209
Trash box with plastic bucket, mesh grating MW 30/10, trafficable, locked	500	160	419	4,9	40257	41219
Trash box with plastic bucket, mesh grating MW 30/10, galvanised, class B 125, locked	500	160	419	5,5	41229	-
Trash box with plastic bucket and GUGI-Ductile iron mesh grating MW 20/30, black, class C 250, locked	500	160	419	6,0	40259	-
Trash box with plastic bucket, ductile iron grating SW 80/14, black, class C 250, locked	500	160	419	6,2	40258	-
Trash box with plastic bucket and ductile iron grating, SW 6 mm, black, cl. C 250 locked	500	160	419	6,9	41239	-
Trash box with plastic-bucket, with perforated grating, stainless steel, car-traffic, locked	500	160	419	4,6	-	41249
Foul air trap, vertical, DN 100	-	-	-	0,5	40295	-
Foul air trap DN 100, inside	-	-	-	0,2	40290	-
End cap closed, made of PE-PP, for type 60	-	147	60	-	40284	-
End cap closed, made of PE-PP, for Type 80	-	147	80	-	40291	-
End cap combined made of PE-PP with outlet DN 70, type 01	-	160	135	0,1	40281	-
End cap combined made of PE-PP with outlet DN 70, type 010	-	160	185	0,2	40283	-
Drilling of connecting holes DN 100	-	-	-	-	972	-
Cutting to length of NW 100	-	-	-	-	990	-
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890	-
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891	

The quality of the stainless steel material is according CNS 1.4301.

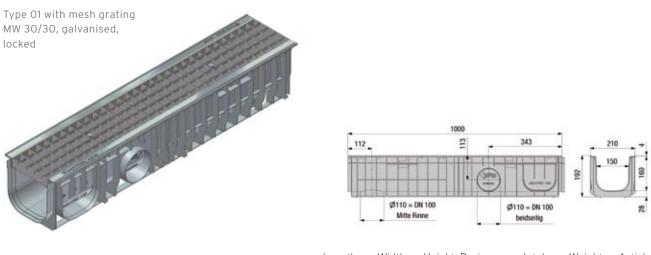


RECYFIX® PLUS
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SLOTTED CAHNNELS
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LINEFIX®

RECYFIX®STANDARD 150 - Combi article, car traffic



RECYFIX®STANDARD 150 - Combi article, class B 125



	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Intake cross- sect. cm²/m	Weight kg	Article No.
Type 01 with mesh grating MW 30/30, galvanised, locked	1000	210	192	225	1081	7,7	40171
Type 0105 with mesh grating MW 30/30, galvanised, locked	500	210	192	225	1081	3,8	40146
Type 01 with mesh grating MW 30/10, galvanised, locked	1000	210	192	225	1098	8,7	40177
Type 0105 with mesh grating MW 30/10, galvanised, locked	500	210	192	225	1098	4,5	40148

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RECYFIX®STANDARD 150

RECYFIX®STANDARD 150 - Combi article, class C 250

RECYFIX ®STANDARD 150 - Combi article, (class C i	250						RECYFIX® PLUS
Tyyp 01 with GUGI-Ductile iron mesh grating MW 20/30, black, locked								RECYFIX ® Standard
A THE AND A THE AREA	112		100		343		50	SLOTTED Cahnnels
		ø110 = Mittel		5	ð110 = DN 100 beidseitig	1_5	38	FASERFIX® STANDARD
	Length mm	Width mm	mm	Drainage cross- sect. cm²	Intake cross- sect. cm²/m	Weight kg	Article No.	
Tyyp 01 with GUGI-Ductile iron mesh grating MW 20/30, black, locked	1000	210	192	225	745	11,9	40174	RECYFIX®POINT F aserfix ®point
Type 0105 with GUGI-Ductile iron mesh grating MW 20/30, black, locked	500	210	192	225	745	6,0	40149	RECYF Faser

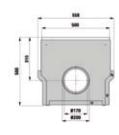
RECYFIX® STREIF

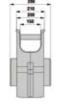
DACHFIX®

RECYFIX® GREEN STANDARD GREEN SUPER

RECYFIX®STANDARD 150 - Accessories

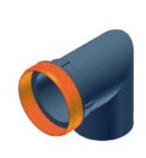


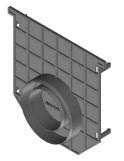




Trash box with galvanised bucket, with mesh grating MW 30/10, galvanised, class B 125, locked







Foul air trap, vertical, DN 100 Foul air trap DN 100, inside

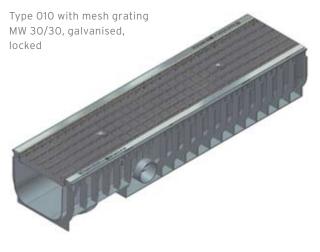
End cap combined made of PE-PP with outlet DN 70/100, Type 01

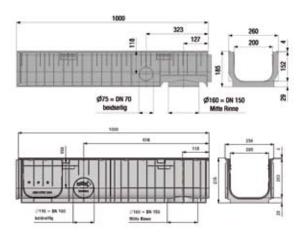
	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with galvanised bucket, with mesh grating MW 30/30, galvanised, class B125, locked	500	210	495	19,9	40154
Trash box with galvanised bucket, with mesh grating MW 30/10, galvanised, class B 125, locked	500	210	495	17,8	40156
Trash box with galvanise bucket with GUGI-Ductile iron mesh grating MW 20/30, black, class C 250, locked	500	210	495	19,6	40153
Foul air trap, vertical, DN 100	_	-	-	0,5	40295
Foul air trap DN 100, inside	-	-	-	0,2	40290
End cap combined made of PE-PP with outlet DN 70/100, Type 01	-	210	202	0,1	40191
Drilling of connecting holes DN 150	-	-	-	-	973
Cutting to length of NW 150	-	-	-	-	991
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891



RECYFIX® PLUS
recyfix ® Standard
SLOTTED CAHNNELS
FASERFIX ® Standard
RECYFIX®POINT FASERFIX®POINT
DACHFIX®
RECVFIX® GREEN SUPER
RECVFIX® GREEN STANDARD
RECYFIX® STREIF
LINEFIX®

RECYFIX®STANDARD 200 - Combi article, class B 125

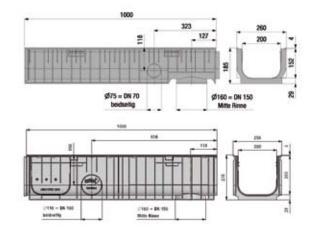




	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Intake cross- sect. cm²/m	Weight kg	Article No.
Type 010 with mesh grating MW 30/30, galvanised, locked	1000	256	185	290	1620	9,3	40672
Type 020 with mesh grating MW 30/30, galvanised, locking device	1000	256	235	366	1620	10,2	40676
Type 010 with mesh grating MW 30/10, galvanised, locked	1000	256	185	290	1442	11,2	40685
Type 020 with mesh grating MW 30/10, galvanised, with locking device	1000	256	235	366	1442	11,3	40686

RECYFIX®STANDARD 200 - Combi article, class C 250





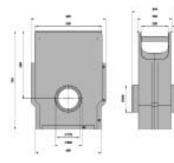
	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Intake cross- sect. cm²/m	Weight kg	Article No.
Type 010 with GUGI-Ductile iron mesh grating MW 20/30, black, locked	1000	256	185	290	825	15,4	40665
Type 020 with GUGI-Ductile iron mesh grating MW 20/30, black, locked	1000	256	235	366	825	15,8	40666
Type 010 with ductile iron grating 2 x 85/20, black, locked	1000	256	185	290	822	15,0	40660
Type 020 with ductile iron grating 2 x 85/20, black, locked	1000	256	235	366	822	15,4	40661

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RECYFIX®STANDARD 200

RECYFIX®STANDARD 200 - Accessories





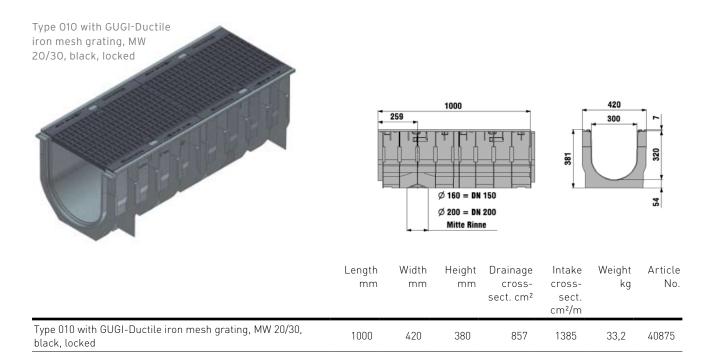
Trash box with mesh grating MW 30/10, galvanised, cl. B 125, locked



End cap combined made of PE-PP with outlet DN 70, Type 010

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with mesh grating MW 30/30, galvanised, cl. B 125, locked	500	256	734	27,0	40656
Trash box with mesh grating MW 30/10, galvanised, cl. B 125, locked	500	256	734	28,6	40657
Trash box with GUGI-Ductile iron mesh grating MW 20/30, black, cl. C 250, locked	500	256	734	30,8	40653
Trash box with ductile iron graitng 2 x 85/20, black, class C 250, locked	500	256	734	30,6	40654
End cap combined made of PE-PP with outlet DN 70, Type 010	-	258	185	0,2	40692
End cap closed, Type 01	-	260	275	0,9	12081
Drilling of connecting holes DN 200	-	-	-	-	974
Cutting to length of NW 200	-	-	-	-	992
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890
Tubular pistol for Sikaflex TS Fast	_	-	-	1,3	6891

RECYFIX®STANDARD 300 - Combi article, class C 250



RECYFIX[®]STANDARD 300 - Accessories



End cap closed, galvanised, Type 010



End cap with horizontal UPVCoutlet DN 200, galvanised, Type 010

	Length mm	Width mm	Height mm	Weight kg	Article No.
End cap closed, galvanised, Type 010	-	420	380	2,8	40881
End cap with horizontal UPVC-outlet DN 200, galvanised, Type 010	-	420	380	3,2	40891
Drilling of connecting holes DN 200	-	-	-	-	974
Cutting to length of NW 300	-	-	-	-	993
Sealing material SikaBond TS Fast, 600 ml, tubular bag, black	-	-	-	0,6	6890
Tubular pistol for Sikaflex TS Fast	-	-	-	1,3	6891

SLOTTED CHANNELS

UNOBTRUSIVE DESIGN - LARGE DRAINAGE CAPACITY. MAXIMUM APPEAL - FOR PEDESTRIAN AREAS.







AT A GLANCE

- Extensive range of drainage solutions with channels made of fibre-reinforced concrete or recycled PE-PP, in nominal widths of 100 mm and 150 mm
 - ☑ Very narrow drainage opening for optimum visual effect
 - Easy access to the channel run via access cover
 - Symmetrical and asymmetrical models

SLOTTED CHANNELS

UNOBTRUSIVE DESIGN - LARGE DRAINAGE CAPACITY. MAXIMUM APPEAL - FOR PEDESTRIAN AREAS.

APPLICATION AREAS

- for areas and façades with strong design requirements
- especially in public and commercial areas with pedestrian access

CHARACTERISTICS

- □ attractive design
- unobtrusive drainage systems
- □ galvanised steel or stainless steel

PRODUCT RANGE

- Iower parts of channels in fibre-reinforced concrete or PE-PP
- □ symmetrical slotted covers
- □ asymmetrical slotted covers
- □ trash boxes with access cover







SLOTTED CHANNELS - visually attractive draining systems for areas and façades.

SLOTTED CAHNNELS



STYLISH DRAINING FOR A MODERN APPEAL

When designing public spaces, areas or façades with a strong aesthetic appeal it is often desirable to keep the surface drainage system as unobtrusive as possible. These situations call for drainage channel elements that fit in well with the architectural concept. At the same time, such systems must retain their full functionality. All surface water has to be drained away fast and reliably. In these situations, SLOTTED CHANNELS are the ideal choice.

HAURATON offers symmetrical and asymmetrical SLOT-TED CHANNELS in two nominal widths. The LOWER PARTS of the channels can be supplied in RECYFIX PE-PP or FASERFIX concrete. The slotted covers are made of galvanised steel or stainless steel. The drainage channels are installed deep below the overlapping surface covering and are therefore hidden from view. The only visible part at the surface is the narrow slot line, which is very unobtrusive and conveys a feeling of style and elegance. At the same time, all functional requirements are fully met. Surface water collects in the channels and is drained away quickly and reliably. SLOTTED CHANNELS can be integrated into all common surface finishes and even into asphalt. One option is also to use the inlet slots as a separator between different areas. Asymmetrical SLOTTED CHANNELS are supplied for drainage applications along façades.



Asymmetrical slotted channels for draining a façade.



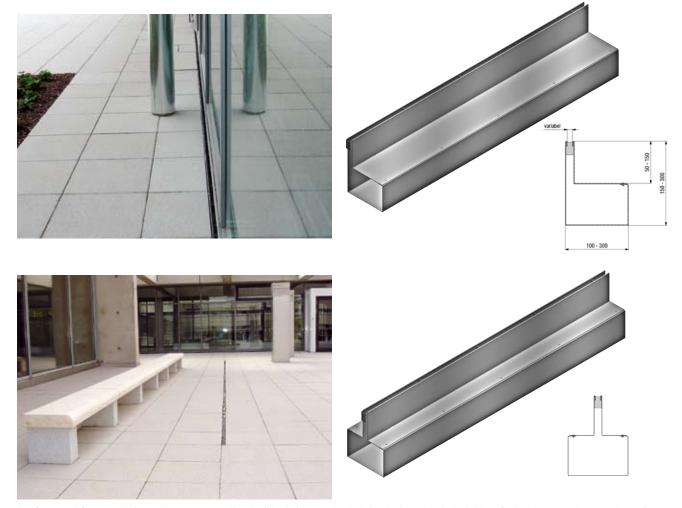
Symmetrical slotted channels for surface draining integrate unobtrusively into the slab paving.

SLOTTED CHANNELS

NON-STANDARD SOLUTIONS.

EXAMPLES OF BESPOKE SOLUTIONS FOR INDIVIDUAL CUSTOMER REQUIREMENTS.

SLOTTED CHANNELS are used for particularly inconspicuous drainage systems. In addition to the standard products, HAURATON supplies numerous special parts. Examples are crossing pieces and T-pieces, all of which can be used not only to provide reliable drainage, but also to create a visual pattern or to provide a demarcation between different types of surface finish. Individual solutions can be offered using symmetrical and asymmetrical SLOTTED CHANNELS in stainless steel or galvanised steel. These are particularly popular in curved applications around revolving doors, on public squares and façades. Our service covers the calculations for hydraulic loads, design and product schedules through to support during installation on site.



Surface and façade drainage has been realised with stainless steel slotted channels in heights of 70, 90 and 150 mm. The unique aspect of this project was that the channels were all laid along one line, which required the design and manufacture of transition pieces. This independent system copes fully and reliably with all drainage tasks.

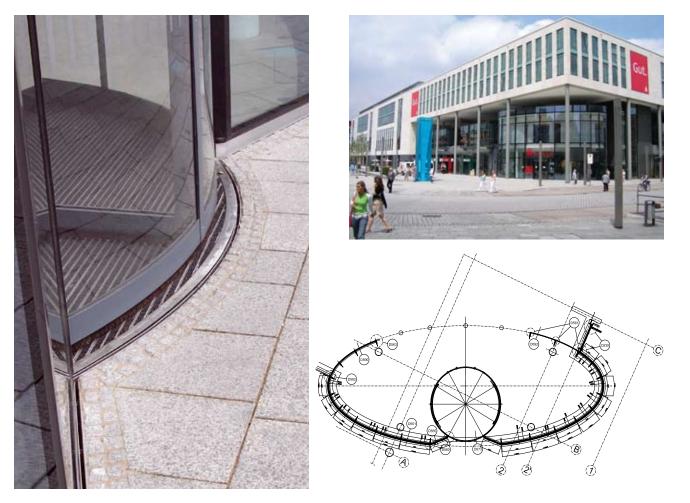
REGENSBURG, GERMANY, NEW BUILDING AND EXTENSION OF FACHHOCHSCHULE

HERTEN, RECTORY



The yard areas of the rectory in Herten are drained with FASERFIX SLOTTED CHANNELS which is laid out in the shape of a cross. The fall for draining the water towards the channel run was determined with the help of special calculations.

HAGEN, SAVINGS BANK



The layout of the building has the shape of an ellipse with revolving doors featuring as the entrance. A curved slotted channel in stainless steel follows the contour of the building and serves to drain storm water from the façade.

RECYFIX® STREIF

RECYFIX® PLUS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT

DACHFIX®

RECYFIX® GREEN SUPER

RECYFIX® GREEN STANDARD

SLOTTED CHANNELS

NON-STANDARD SOLUTIONS.

EXAMPLES OF BESPOKE SOLUTIONS FOR INDIVIDUAL CUSTOMER REQUIREMENTS.

NEW VISITOR CENTRE FOR BASF

The new visitor centre of BASF was opened in the spring of 2007. Every year, about 50,000 visitors come to the factory in Ludwigshafen. The new visitor centre adds value to the location and offers a prestigious venue for visitors who come to learn more about the factory. In future, guests will be able to enter the visitor centre directly from the outside. For this purpose, the whole southern aspect of the building will be remodelled. In addition, the current roof will be replaced by a glazed structure on the fifth level which can be entered by the visitors. The visitor centre is expected to provide about 2,000 square metres of space. The open area in front of the visitor centre will be redesigned to look modern and attractive. This creates a central open area towards the neighbouring building, which can also be used for events such as the open door day. To meet these requirements, unobtrusive and highly efficient slotted channels from HAURATON were installed for surface drainage. These slotted channels are made of 4 mm thick stainless steel and feature a neck dimension of 280 mm with the load class being D 400. The solid construction of the channels makes it possible to lay the 160 mm thick paving slabs (these had also been specially developed for the project) right up to the slotted channels. The base segment used is the FASERFIX SUPER 150 channel, which provides adequate hydraulic performance



The new BASF visitor centre in Ludwigshafen.



The 160 mm strong paving can be laid right up to the slotted channel.



For draining the new roof terrace, a DACHFIX channel has been design specifically for this project.

The SIDE-LOCK boltless locking system and 6 bolt fixings per linear metre ensure double safety for locking the slot inlets to the channel. The drainage line is serviced from special access covers that form a visual continuation of the channel.

The newly designed roof terrace is drained using 260 m DACHFIX special model with a width of 250 mm and with adjustable height. The DACHFIX components meet all technical requirements of the project through made-tomeasure production.

The new BASF visitor centre in Ludwigshafen - an architectural highlight with long-term benefits for the company and visitors alike.

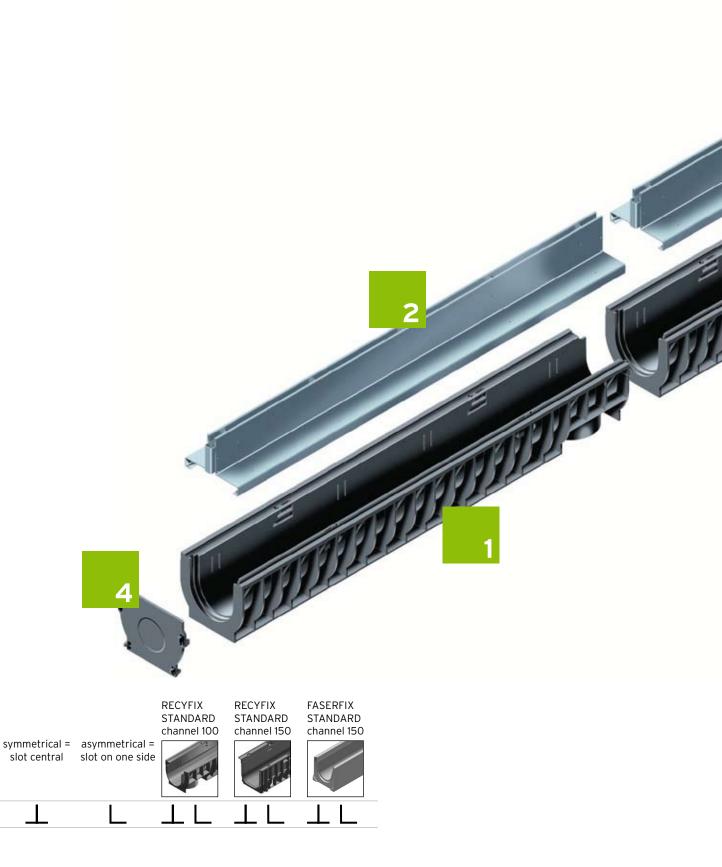


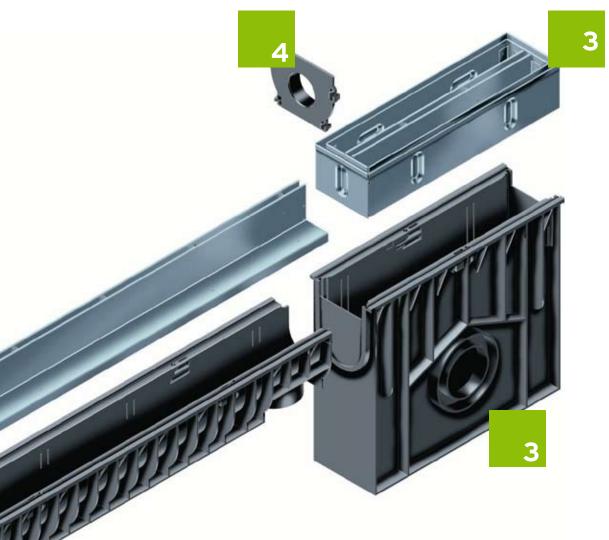
Installation of the solid slotted channel with grating in 4 mm stainless steel, with a neck dimension of 280 mm.

AQUA

SLOTTED CHANNELS

UNOBTRUSIVE DESIGN - LARGE DRAINAGE CAPACITY. MAXIMUM APPEAL - FOR PEDESTRIAN AREAS.





Channels made of PE-PP or fibre reinforced conrete in nominal widths 100 and

exact installation

150 mm, with groove and tongue connection for

2

symmetrical and asymmetrical covers made of galvanised or stainless steel

Trash box with pipeconnection possibilities, with fitting access cover



- End caps with and without outlets
- RECYFIX® GREEN STANDARD GREEN SUPER

RECYFIX® PLUS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT

DACHFIX®

CIVILS

SLOTTED CHANNEL 100

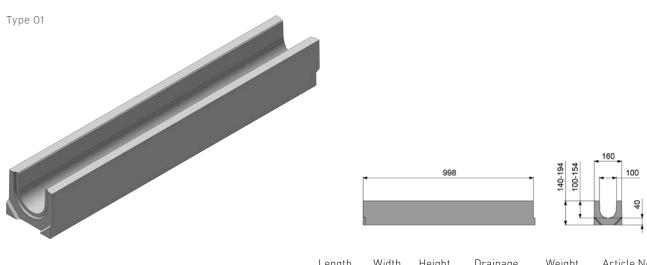
SLOTTED CHANNEL 100 - RECYFIX lower parts

Type 01



	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Туре 01	1000	160	131	92	2,1	40325
Туре 010	1000	160	181	142	3,0	7605

SLOTTED CHANNEL 100 - FASERFIX lower parts



	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Туре 01	1000	160	140	89	31,5	6200
Туре 010	1000	160	194	143	39,8	6242
Туре 0105	500	160	140	89	15,8	6249

Channels with built-in fall on request.



SLOTTED CHANNEL 100

SLOTTED CHANNEL 100 - Slotted covers, neck height 160, class C 250

-

	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No. galvanised	Article No. stainless steel
symmetric	1000	160	188	125	8,2	5721	5771
symmetric	500	160	188	125	4,1	5722	5772
asymmetric	1000	160	188	125	8,2	5725	5775
asymmetric	500	160	188	125	4,2	5726	5776

Bigger NW and individual neck heights available as special construction for orders bigger than 30 m.

Available from II. quarter 2008.

symmetric

The quality of the stainless steel material is according CNS 1.4301.

SLOTTED CHANNEL 100 - Slotted covers, neck height 200, class D 400*

symmetric	Length	Width	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No. galvanised	Article No. stainless steel
symmetric	1000	160	204	125	17,5	5821	5871
symmetric	500	160	204	125	8,8	5822	5872
ssymmetric	1000	160	204	125	18,2	5825	5875
SSymmetric							

* Not for use across the carriageway of highways or motorways in moving traffic.

Bigger NW and individual neck heights available as special construction for orders bigger than 30 m. The quality of the stainless steel material is according CNS 1.4301.

RECYFIX® PLUS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT

DACHFIX®

RECYFIX® GREEN SUPER

RECYFIX® GREEN STANDARD

RECYFIX® STREIF

SLOTTED CHANNEL 100

SLOTTED CHANNEL 100 - Accessories - RECYFIX STANDARD 100







Trash box for SLOTTED CHANNEL

Foul air trap, vertical, DN 100

Foul air trap DN 100, inside

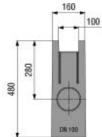
End cap combined made of PE-PP with outlet DN 70, type 01

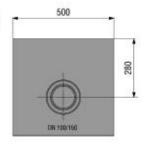
	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box for SLOTTED CHANNEL	500	160	416	3,0	7755
Foul air trap, vertical, DN 100	-	-	-	0,5	40295
Foul air trap DN 100, outside	-	-	-	0,4	961
Foul air trap DN 100, inside	-	-	-	0,2	40290
End cap combined made of PE-PP with outlet DN 70, type 01	-	160	135	0,1	40281



SLOTTED CHANNEL 100 - Accessories - FASERFIX STANDARD 100 E











Foul air trap DN 100 with hole

End cap closed, galvanised, Type O1

Trash box with plastic bucket

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with plastic bucket	500	160	480	41,4	6253
Trash box with galvanised bucket	500	160	480	42,4	6255
Foul air trap DN 100, outside	-	-	-	0,4	961
Foul air trap, DN 100, inside use	-	-	-	0,4	962
Foul air trap DN 100 with hole	-	-	100	0,2	964
End cap closed, galvanised, Type 01	-	160	140	0,3	6290
End cap closed, Type 01	-	160	160	0,3	8181

RECYFIX® PLUS

RECYFIX® Standard

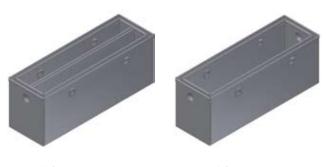
SLOTTED CAHNNELS

FASERFIX® Standard

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DACHFIX®

SLOTTED CHANNEL 100 - Accessories - Access covers, neck height 160 mm, class C 250



symmetric

asymmetric

	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised	Article No. stainless steel
symmetric	500	160	188	8,0	5746	5796
asymmetric	500	160	188	7,1	5756	5786
Extraction bail for access covers (2 pieces required)	-	-	-	-	740	-

Available from II. quarter 2008.

The quality of the stainless steel material is according CNS 1.4301.

SLOTTED CHANNEL 100 - Accessories - Access covers, neck height 200 mm, class D 400*



symmetric



asymmetric

	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised	Article No. stainless steel
symmetric	500	160	204	23,4	5846	5896
asymmetric	500	160	204	18,1	5856	5886
Extraction bail for access covers (2 pieces required)	-	-	-	-	740	-

* Not for use across the carriageway of highways or motorways in moving traffic. The quality of the stainless steel material is according CNS 1.4301.

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SLOTTED CHANNEL 100

SLOTTED CHANNEL 100 - Accessories - Service

	Length mm	Width mm	Height mm	Weight kg	Article No.
Cutting to length of NW 100	-	-	-	-	990
Mitre cuts for NW 100 (two cuts per connection)	-	-	-	-	995
Drilling of connecting holes DN 100	-	-	-	-	972
Inserting of PVC union connectors DN 100 *	-	-	-	-	982

RECYFIX® PLUS

DACHFIX®

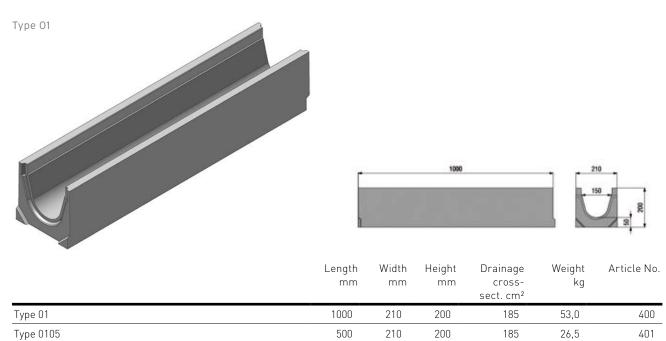
SLOTTED CHANNEL 150 - RECYFIX STANDARD lower parts

Type O1



	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Туре 01	1000	210	192	225	2,7	41021

SLOTTED CHANNEL 150 - FASERFIX STANDARD lower parts





SLOTTED CHANNEL 150 - Slotted cover, neck height 160, class C 250

symmetric

	Length	Width	Height	Intake	Weight	Article No.
	mm	mm	mm	cross- sect. cm²/m	kg	galvanised
symmetric	1000	206	188	125	9,1	412
symmetric	500	206	188	125	4,6	413
asymmetric	1000	206	188	125	9,2	452
asymmetric	500	206	188	125	4,7	453

Bigger NW and individual neck heights available as special construction for orders bigger than 30 m.

Available from II. quarter 2008.

The quality of the stainless steel material is according CNS 1.4301.

SLOTTED CHANNEL 150 - Slotted cover, neck height 200, class D 400*

symmetric	Length	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No. galvanised	Article No. stainless steel
symmetric	1000	206	204	125	19,2	417	427
symmetric	500	206	204	125	9,7	418	428
asymmetric	1000	206	204	125	20,0	457	467
asymmetric	500	206	204	125	10,1	458	468

* Not for use across the carriageway of highways or motorways in moving traffic.

Bigger NW and individual neck heights available as special construction for orders bigger than 30 m. The quality of the stainless steel material is according CNS 1.4301.

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SLOTTED CAHNNELS

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RECYFIX® GREEN STANDARD

Article No. stainless

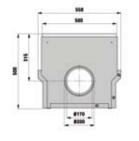
steel

422 423 462

463

SLOTTED CHANNEL 150 - Accessories - RECYFIX STANDARD 150



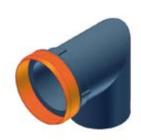




Trash box with galvanized mud bucket



Foul air trap, vertical, DN 100



Foul air trap DN 100, inside

End cap combined made of PE-PP with outlet DN 70/100, Type 01

	Length	Width	Height	Weight	Article
	mm	mm	mm	kg	No.
Trash box with galvanized mud bucket	500	210	500	14,9	40152
Foul air trap, vertical, DN 100	-	-	-	0,5	40295
Foul air trap DN 100, inside	-	-	-	0,2	40290
End cap combined made of PE-PP with outlet DN 70/100, Type 01	_	210	202	0,1	40191



SLOTTED CHANNEL 150 - Accessories - FASERFIX STANDARD 150



Trash box with galvanised mud bucket

	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised	Article No. stainless steel
Trash box with galvanised mud bucket	500	210	570	65,9	416	-
Foul air trap DN 150	-	-	-	2,0	960	-
End cap closed, type 01	=	210	220	0,9	11081	11581

SLOTTED CHANNEL 150 - Accessories - Access covers, neck height 160, class C 250



symmetric

asymmetric

Length Width Height Weight Article No. Article No. mm kg galvanised stainless steel mm mm 500 206 8,9 471 188 481 symmetric 486 206 7,9 476 500 188 asymmetric 740 Extraction bail for access covers (2 pieces required) _ _ _ _ -

Available from II. quarter 2008.

The quality of the stainless steel material is according CNS 1.4301.

SLOTTED CHANNEL 150 - Accessories - Access covers, neck height 200, class D 400*



	Length mm	Width mm	Height mm	Weight kg		Article No. stainless steel
symmetric	500	206	204	25,7	490	495
asymmetric	500	206	204	20,4	491	496
Extraction bail for access covers (2 pieces required)	-	-	-	-	740	-

* Not for use across the carriageway of highways or motorways in moving traffic. The quality of the stainless steel material is according CNS 1.4301.

SLOTTED CHANNEL 150 - Accessories - Service

	Length mm	Width mm	Height mm	Weight kg	Article No.
Cutting to length of NW 150	-	-	-	-	991
Mitre cuts of NW 150 (two cuts per connection)	-	-	-	-	996
Drilling of connecting holes DN 150	-	-	-	-	973
Inserting of PVC union connectors DN 150*	-	-	-	-	983

RELIABLE DRAINAGE. FOR USE IN PEDESTRIAN AND DOMESTIC AREAS.





AT A GLANCE ☑ FASERFIX STANDARD E 100 channels in acc. with DIN EN 1433 🗹 Easy to install For domestic and commercial areas up to load class C250 ☑ With and without built-in fall Resistant to frost and salt

RELIABLE DRAINAGE.

FOR USE IN PEDESTRIAN AND DOMESTIC AREAS.

REQUIREMENTS

For fast and reliable surface water drainage in domestic situations, yards, gardens and landscaping. The channels should also be suitable for installation by householders and meet the requirements of loading capacities A - C in accordance with DIN EN 1433.

SOLUTION

FASERFIX STANDARD channels made of fibre-reinforced concrete are an economic alternative to the well-known FASERFIX SUPER channels. In combination with the GUGI ductile iron mesh gratings, FASERFIX STANDARD channels 100 E meet the requirements of load class C 250 in accordance with DIN EN 1433. The channels are resistant to frost and road salt.



APPLICATION AREAS

Primarily domestic areas such as garage entrances, yards, terraces, gardens etc. but also public areas such as smaller railway stations.





RELIABLE DRAINAGE.

FOR USE IN PEDESTRIAN AND DOMESTIC AREAS.

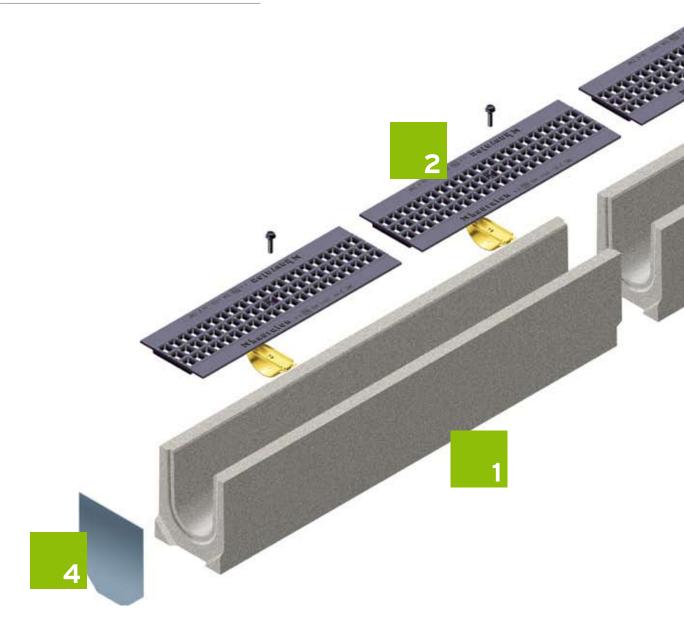
FASERFIX STANDARD E 100 channels meet the requirements of DIN EN 1433 and are suitable for the following loading capacities:

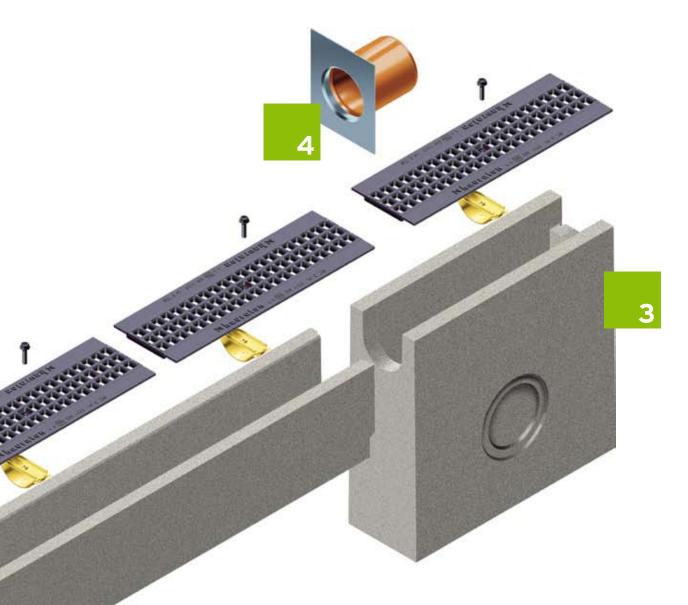


CATEGORY A 15, LOAD CLASS 15 KN

CATEGORY B 125, LOAD CLASS 125 KN

CATEGORY C 250, LOAD CLASS 250 KN





LINEFIX®

Channels made of fibre reinforced concrete, according DIN V 19580 / EN 1433, CE-conform with safety joint, with groove and tongue for exact installation



numerous grating options, for exemple GUGI-Ductile iron mesh gratings, with fixing possibility

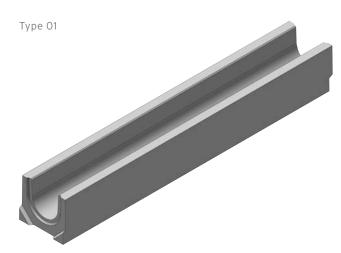


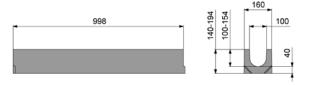
Trash box with pipeconnection possibilities, with removable mud bucket

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End caps with and without outlets

FASERFIX®STANDARD E 100 - Channel lower parts



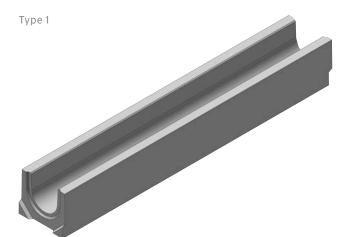


	Length mm	Width mm	Height mm	Drainage cross- sect. cm²	Weight kg	Article No.
Туре 01	1000	160	140	89	31,5	6200
Type 01L with hole*	1000	160	140	89	31,2	6300
Туре 010	1000	160	194	143	39,8	6242
Type 010L with hole*	1000	160	194	143	39,4	6342
Туре 0105	500	160	140	89	15,8	6249

* Distance from middle of the hole (DN100) to the end of the channel: 100 mm.



FASERFIX®STANDARD E 100 - Channel lower parts built-in fall 0,6 %



-	998	140-194	100-154	
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RECYFIX® PLUS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT

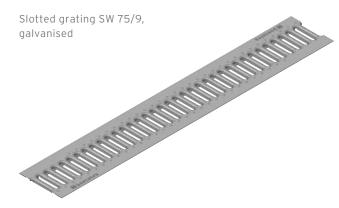
DACHFIX®

RECYFIX® GREEN STANDARD GREEN SUPER

				Len		lth H 1m	mm	ainage cross- ct. cm²	Weight kg	Article No.
Туре 1				10	00 16	0 140 -	146	89	32,2	6201
Type 2				10	00 16	0 146 -	152	95	33,0	6202
Туре З				10	00 16	0 152 -	158	101	33,8	6203
Type 4				10	00 16	0 158 -	164	107	34,5	6204
Type 5				10	00 16	0 164 -	170	113	35,2	6205
Туре 6				10	00 16	0 170 -	176	119	36,0	6206
Туре 7				10	00 16	0 176 -	182	125	36,8	6207
Туре 8				10	00 16	0 182 -	188	131	37,5	6208
Туре 9				10	00 16	0 188 -	194	137	38,2	6209
Туре 10				10	00 16	0 194 -	200	143	39,0	6210
End cap Type 01	1	2	3	4	5	6	7	1	8	9 10
									End cap with hori	Type 01 zontal outlet
Туре	1	2	3	4	5	6	7	;	8	9 10
Height mm	140-146	146-152	152-158	158-164	164-170	170-176	176-182	182-18	8 188-19	194-200
Drainage cross- sect. cm²	89	95	101	107	113	119	125	13	1 13	37 143
Weight KG	32,25	33,0	33,75	34,5	35,25	36,0	36,75	37,	5 38,2	25 39,0

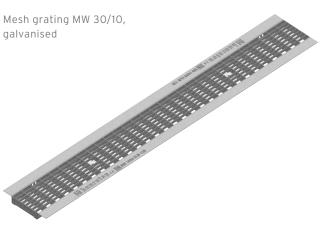
RECYFIX® Streif

FASERFIX®STANDARD E 100 - Gratings, car traffic



	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Slotted grating SW 75/9, galvanised	1000	158	21	280	2,4	6270
Slotted grating SW 75/9, garvanised	500	158	21	280	1,2	6271

FASERFIX®STANDARD E 100 - Gratings, class B 125



	Length mm	Width mm	Height mm	Intake cross- sect. cm²/m	Weight kg	Article No.
Mesh grating MW 30/10, galvanised	1000	158	20	650	3,6	6280
Mesh grating MW 30/10, galvanised	500	158	20	650	1,8	6281



FASERFIX®STANDARD E 100 - Gratings, class C 250

GUGI-Ductile iron mesh grating MW 20/30, black



	Length mm	Width mm	5	Intake cross- sect. cm²/m	Weight kg	Article No.
GUGI-Ductile iron mesh grating MW 20/30, black	500	158	14	444	3,3	6267

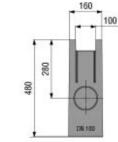
We recommend to fix the GUGI-Ductile iron mesh gratings with the locking handle art.-no. 6267 roadworthy.

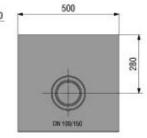
LINEFIX®

FASERFIX®STANDARD E 100 - Accessories



Trash box with plastic bucket



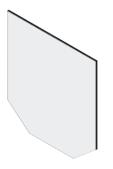






Foul air trap DN 100 with hole

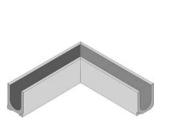
UPVC-outlet DN 100



End cap closed, galvanised, Type O1



Locking handle for ductile iron gratings



Mitre cuts of NW 100 (two cuts per connection)



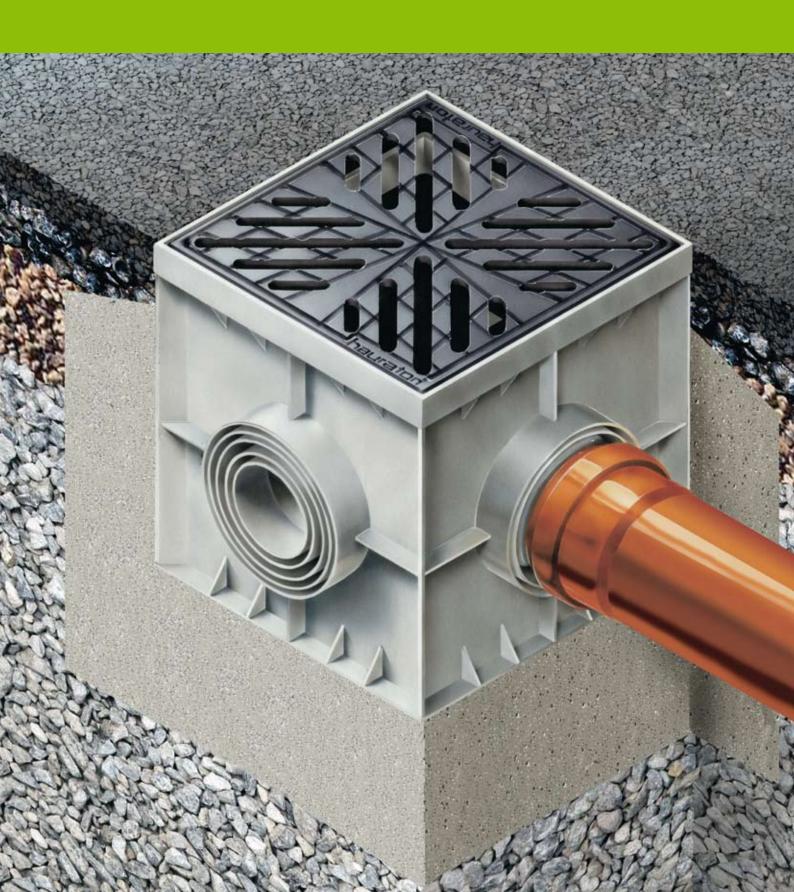
Inserting of PVC union connectors DN 100

	Length mm	Width mm	Height mm	Weight kg	Article No.
Trash box with plastic bucket	500	160	480	41,4	6253
Trash box with galvanised bucket	500	160	480	42,4	6255
Foul air trap DN 100 with hole	-	-	100	0,2	964
UPVC-outlet DN 100	-	-	-	0,2	903
End cap closed, galvanised, Type 01	-	160	140	0,3	6290
End cap closed, galvanised, Type 010	-	160	194	0,4	6291
End cap with horizontal PVC-outlet DN 100, galvanised, Type 010	-	160	194	0,5	6297
Locking handle for ductile iron gratings	-	-	-	0,1	5095
Locking handle for all slotted gratings	-	-	-	0,1	5090
Cutting to length of NW 100	-	_	-	-	994
Mitre cuts of NW 100 (two cuts per connection)	-	-	-	-	999
Drilling of connectiong holes DN 100	-	_	-	-	977
Inserting of PVC union connectors DN 100	-	-	-	-	987

RECYFIX®POINT FASERFIX®POINT STANDARD

POINT DRAINAGE.

FOR GARDENS, GARAGES AND RESIDENTIAL AREAS.







AT A GLANCE

- ✓ RECYFIX POINT made of high-quality polypropylene
- ✓ FASERFIX POINT STANDARD made of fibre-reinforced concrete
- For heavy rains or large quanities of melt water
- Ideal for all paved yards, drives and pathways, wash stations and car repair workshops

RECYFIX®POINT FASERFIX®POINT STANDARD

POINT DRAINAGE.

FOR GARDENS, GARAGES AND RESIDENTIAL AREAS.

REQUIREMENTS

After prolonged periods of rain, heavy rainfalls or melting snow, yards and other areas can flood very quickly. RECYFIX POINT and FASERFIX POINT STANDARD yard gullies provide a simple and effective solution. And in terms of durability and strength the point gullies from HAURATON meet all requirements.

SOLUTION

RECYFIX POINT and FASERFIX POINT STANDARD yard gullies are reliable drainage gullies with an attractive design for yards, driveways and other areas. To match the format of any adjoining paving they have been designed in a popular square format of 30 x 30 cm. The yard gullies are made either from polypropylene or from fibre-reinforced concrete. Both materials guarantee a very long service life. Owing to its small weight of only 2.5 kg, the RECYFIX POINT yard gully is easy to transport and install. It can be connected to any common ground drainage pipes. Preformed pipe outlets on all four sides make the connection to all common pipe formats easy. There is a choice of two different gratings. The star design of the high-quality cast iron grating is particularly attractive as a focal point. The other option is a mesh grating in galvanised steel.



A point drainage set includes a mud bucket and an immersion baffle as a foul air trap. The FASERFIX POINT STANDARD comes equipped with an integral PVC union connector in DN 100 with a sealing lip for connecting to the ground drainage pipe.

APPLICATION AREAS

FASERFIX and RECYFIX POINT gullies are designed for point drainage of paved or metalled commercial and domestic areas.





Special stainless steel grating

RECYFIX® Green standard

DACHFIX®

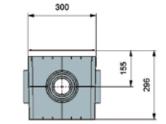
LINEFIX®

RECYFIX®POINT 30/30

RECYFIX®POINT 30/30 - Point drain



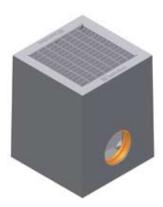
with ductile iron grating, star design, black



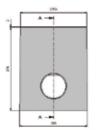


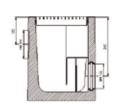
	Length mm	Width mm	Height mm	Weight kg	Article No.
with ductile iron grating, star design, black	300	300	300	7,6	185
with mesh grating, MW 30/15, galvanised	300	300	300	4,2	183
Upper part made of Polypropylene, heigth 120 mm	300	300	120	0,7	178

FASERFIX®POINT 30/30 - Point drain



with mesh grating MW 30/15, galvanised



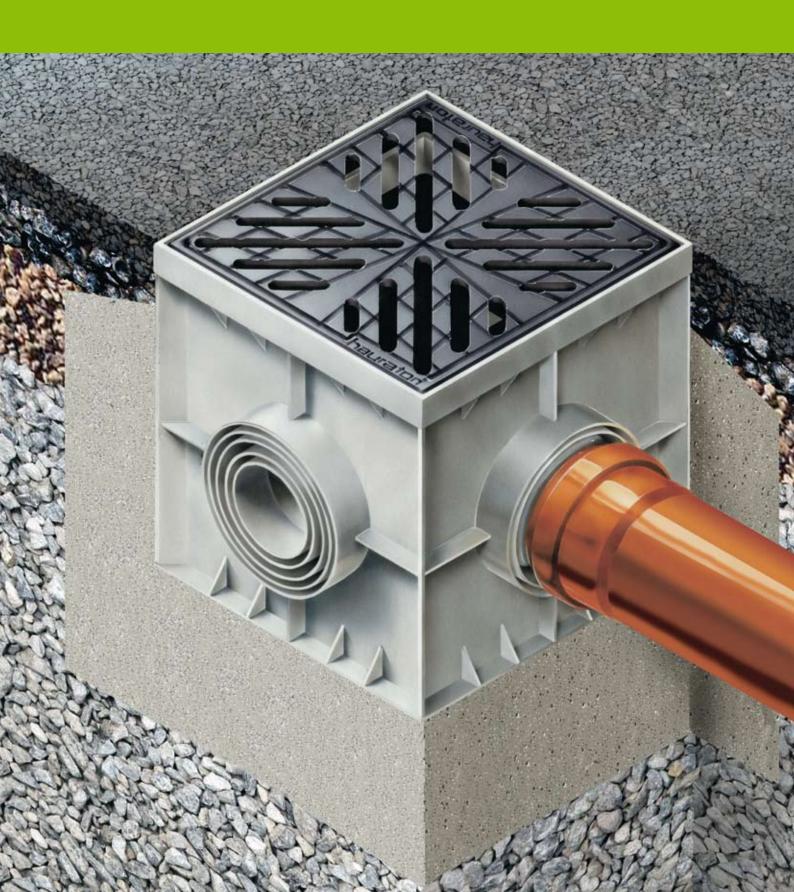


	Length	Width	Height	Weight	Article
	mm	mm	mm	kg	No.
with mesh grating MW 30/15, galvanised	300	305	375	35,5	4430

RECYFIX®POINT FASERFIX®POINT STANDARD

POINT DRAINAGE.

FOR GARDENS, GARAGES AND RESIDENTIAL AREAS.







AT A GLANCE

- ✓ RECYFIX POINT made of high-quality polypropylene
- ✓ FASERFIX POINT STANDARD made of fibre-reinforced concrete
- For heavy rains or large quanities of melt water
- Ideal for all paved yards, drives and pathways, wash stations and car repair workshops

RECYFIX®POINT FASERFIX®POINT STANDARD

POINT DRAINAGE.

FOR GARDENS, GARAGES AND RESIDENTIAL AREAS.

REQUIREMENTS

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A point drainage set includes a mud bucket and an immersion baffle as a foul air trap. The FASERFIX POINT STANDARD comes equipped with an integral PVC union connector in DN 100 with a sealing lip for connecting to the ground drainage pipe.

APPLICATION AREAS

FASERFIX and RECYFIX POINT gullies are designed for point drainage of paved or metalled commercial and domestic areas.





Special stainless steel grating

RECYFIX® Green standard

DACHFIX®

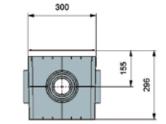
LINEFIX®

RECYFIX®POINT 30/30

RECYFIX®POINT 30/30 - Point drain



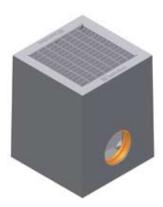
with ductile iron grating, star design, black



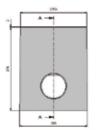


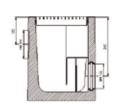
	Length mm	Width mm	Height mm	Weight kg	Article No.
with ductile iron grating, star design, black	300	300	300	7,6	185
with mesh grating, MW 30/15, galvanised	300	300	300	4,2	183
Upper part made of Polypropylene, heigth 120 mm	300	300	120	0,7	178

FASERFIX®POINT 30/30 - Point drain



with mesh grating MW 30/15, galvanised



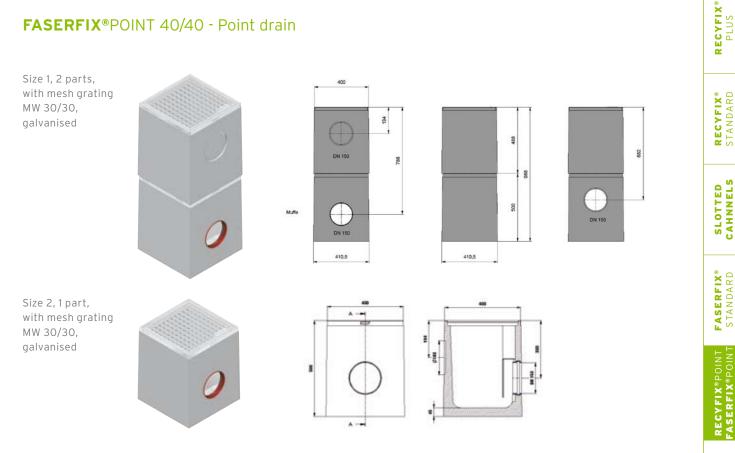


	Length	Width	Height	Weight	Article
	mm	mm	mm	kg	No.
with mesh grating MW 30/15, galvanised	300	305	375	35,5	4430

Hauraton

FASERFIX®POINT 40/40

FASERFIX®POINT 40/40 - Point drain



	Length mm	Width mm	Height mm	Weight kg	Article No.
Size 1, 2 parts, with mesh grating MW 30/30, galvanised	400	400	988	141,0	4860
Size 2, 1 part, with mesh grating MW 30/30, galvanised	400	400	500	82,4	4760
Extension part	400	400	438	58,5	4825

TENDER PROPOSALS

1. <u>no</u>.

RECYFIX POINT 30/30

yard gully in PE-PP, with grating _____, load class B 125, with foul air trap, plastic mud bucket and union connector for PVC pipe DN 100, I/w/h 300x300x300 mm, art. no. ___ To be supplied and laid in accordance with the manufacturer's installation instructions. Quality in acc. with DIN EN ISO 9001:2000 Manufactured by: Hauraton GmbH & Co. KG P. O. Box 16 61 D-76437 Rastatt, Germany Tel.: +49-7222-958-0 Fax: +49-7222-958-102 E-Mail: export@hauraton.com

2. ____ no.

FASERFIX POINT STANDARD

yard gully in fibre-reinforced concrete, class A 15, size _____, with PVC connector union with seal DN 100, foul air trap, plastic mud bucket and mesh grating MW 30/15, I/w/h _____x___ _mm, art. no. ______. To be supplied and laid in accordance with the manufacturer's installation instructions. Quality in acc. with DIN EN ISO 9001:2000 Manufactured by: Hauraton GmbH & Co. KG P. O. Box 16 61 D-76437 Rastatt, Germany Tel.: +49-7222-958-0

Fax: +49-7222-958-102 E-Mail: export@hauraton.com RECYFIX® STREIF

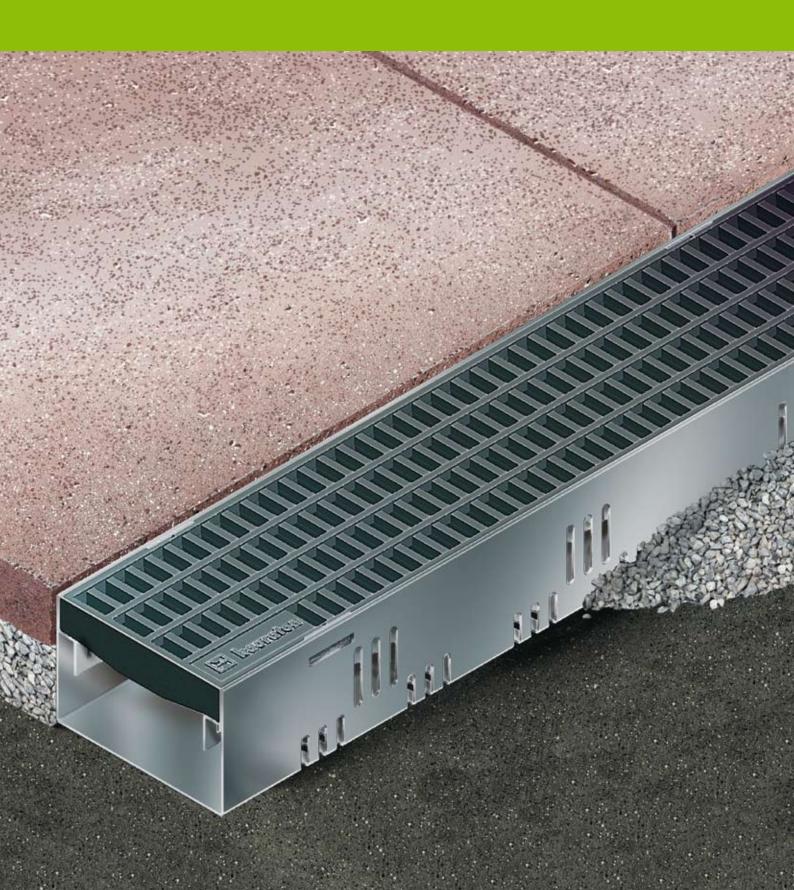
DACHFIX®

RECYFIX® GREEN SUPER

RECYFIX® GREEN STANDARD

DACHFIX®

UNIQUE AND RELIABLE DRAINAGE. FOR DRAINING ROOF TERRACES AND FAÇADES.





AT A GLANCE

- Provide reliable protection against water build-up
- ☑ Robust construction
- Produced in long standard pieces for efficient installation
- Attractive grating options

DACHFIX®

UNIQUE AND RELIABLE DRAINAGE. FOR DRAINING ROOF TERRACES AND FAÇADES.

REQUIREMENT

Surface water on flat roofs and roof terraces must be allowed to drain away quickly and reliably. It is imperative to prevent damage from water rising above the threshold of doors and windows and from water pressure against vertical parts of the building. At the same time, the guidelines for flat roof construction and the relevant DIN standards have to be complied with. In accordance with the guidelines for flat roofs it is possible to reduce the standard upstand of 15 cm in front of doors if there is suitable drainage in the immediate proximity of the doors. The illustrations in the flat roof guidelines show a suitable drainage option. The system requires additional back pressure capacity for rainwater from sudden downpours.

SOLUTION

DACHFIX channels provide good spare capacity for back pressure from sudden accumulations of precipitation water. They can be used for horizontal and vertical drainage. They protect walls, doors and window elements against water levels building up. DACHFIX channels are open channel systems. The LOWER PARTS of the channels consist of a strong frame or shell construction with outlet options to all sides. The height adjustment devices of the DACHFIX channels make it possible to adapt the channels to all kinds of unevenness in the substrate. The top edge of the channels should always finish flush with the paving slabs.

The complete drainage set is easy to install and can simply be cut on site to suit the drainage layout. Likewise it is possible to use DACHFIX channels as escape routes or catwalks for cleaning purposes. It is also possible to order non-standard parts in different materials and nonstandard construction.

CHARACTERISTICS

- good reserve capacity for dealing with back pressure from sudden water precipitation
- effective protection of walls, doors and window elements
- □ for barrier-free passages on roof terraces
- Iower parts made of recycled PE-PP, corrosion-proof and durable

PRODUCT RANGE

- lower parts made of galvanised steel or stainless steel or recycled PE-PP
- □ large channel lengths up to 1500 mm
- □ gratings in galvanised steel or stainless steel
- mesh gratings in galvanised steel, stainless steel or PE-PP
- □ DACHFIX Gully elements



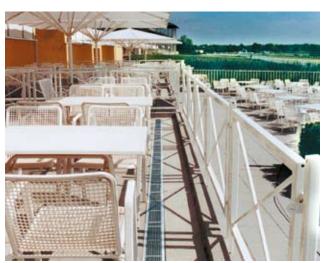
APPLICATIONS

DACHFIX channels are suitable for planted roofs, walk-on roof areas and roof terraces, as façade channels as well as drainage channels in front of entrances, balconies and terraces.









DACHFIX®

NON-STANDARD SOLUTIONS.

EXAMPLES OF BESPOKE SOLUTIONS FOR INDIVIDUAL CUSTOMER REQUIREMENTS.

In public spaces with a high volume of traffic the architectural design is particularly important. Drained surfaces and façades should harmonise visually with the design of the overall building.

HAURATON offers a broad range of channels in stainless steel or galvanised steel for this situation, which are individually manufactured according to the specification for a technically and attractive surface drainage. These products are characterised by a high degree of flexibility. The channels are very well suited to be integrated in any type of façade or surface material as required by architect and client. For special duties, the technicians at HAURATON work together with the engineers to develop new versions; for example for the Mercedes-Benz museum in Stuttgart the company developed channels with removable sidewall in high-quality stainless steel. The connection profile of the façade elements is positioned below the top edge of the channel. This makes it possible to service or replace glass elements after the installation of the channel without having to incur the expense of removing the channels.

FRANKFURT OVAL, GERMANY

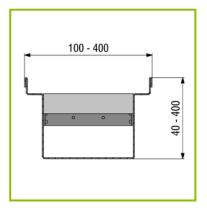


Economy drainage channel in stainless steel, polygonal with stainless steel grating. The façade drainage channel was individually adapted to the contour of the building, creating an elegant transition between horizontal surface finishes and façade.

BOX CHANNELS ECONOMY, STRAIGHT







FRANKFURT MAINTOWER



DACHFIX channel, polygonal with perforated grating. With a height of 200 metres, the Main Tower is the fourth-highest tower block in Frankfurt. The viewing platform is drained with the help of polygonally installed DACHFIX channels which were adapted to the two different diameters of the round layout of the Tower.

FRANKFURT AIRPORT CENTER, GERMANY



Radial economy box channel with mesh grating. The channel has been specially adapted to the double revolving door.

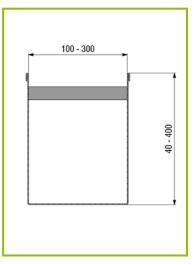


Roof terrace drainage via slotted channel.

BOX CHANNELS ECONOMY, RADIAL







RECYFIX® PLUS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT

DACHFIX®

RECYFIX® GREEN SUPER

RECYFIX® GREEN STANDARD

RECYFIX® STREIF

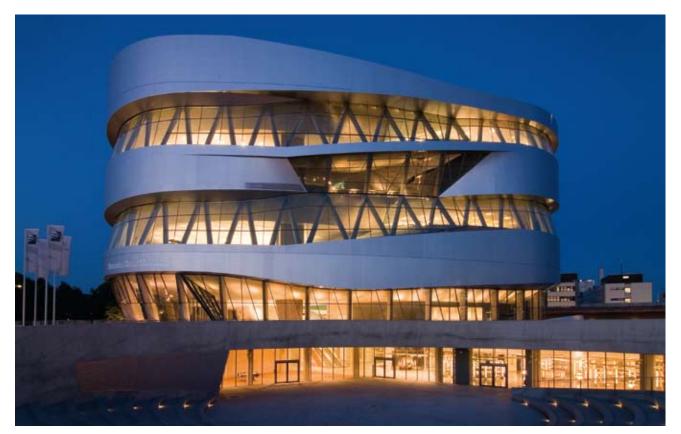
LINEFIX®

NON-STANDARD SOLUTIONS.

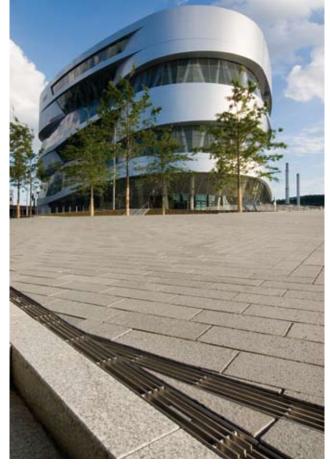
EXAMPLES OF BESPOKE SOLUTIONS FOR INDIVIDUAL CUSTOMER REQUIREMENTS.

MERCEDES-BENZ MUSEUM STUTTGART: TRENDSETTING ARCHITECTURE WITH DRAINAGE CHANNELS SUPPLIED BY HAURATON

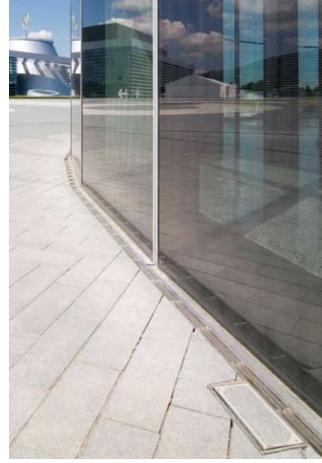
In May 2006, the new Mercedes-Benz museum in Stuttgart was opened and since then has been hailed as a symbol for modern architecture and building technology. It is the largest one-make motorcar museum in the world and is considered one of the most important tourist attractions in Stuttgart. Every year, the museum expects up to 720 000 visitors from all over the world at the historic site in the immediate proximity of the factory in Untertürkheim, which is considered the cradle of the automobile. Modern architecture demands special solutions for many details - and surface drainage is no exception. For the external works of the Mercedes-Benz museum the architects specified drainage channels from HAURATON. The company developed technically very advanced channel systems that visually integrate perfectly into the overall design whilst meeting all other requirements, such as providing a slotted façade channel with longitudinal grating and removable side wall.



A masterpiece of modern architecture - the Mercedes-Benz museum in Stuttgart.



The stainless steel drainage channels were developed according to site-specific requirements.



Water from the façade is drained via channels with longitudinal grating and removable sidewall. Special inspection boxes allow access to the channels for servicing.

Should any of the façade panels become damaged, it can be replaced with the channel remaining in place without any difficulties.

The hydraulic capacity requirements were calculated using a highly sophisticated hydraulics program which has been developed especially for HAURATON.

The unusual architecture of the Mercedes-Benz museum was highly demanding in terms of design, production, logistics and installation. All products were designed with the help of a CAD program, illustrating each item in three dimensions; this made it possible, at an early stage in the design, to check for visual, functional and technical requirements. This process made it possible to involve the architects and client at an early stage until finally a specification for the desired channel could be put out to tender. From the initial survey, the project-specific manufacture of the channels and their installation through to the final handover, members of the HAURATON project team provided their support for the companies involved in the project. During construction on the building site for the Mercedes-Benz museum, the company expertly managed to resolve numerous situations that could not be foreseen and required a flexible ad-hoc input. For example, the unusual shape of the museum façade was highly demanding with respect to producing an accurate site survey. Each of the façade channels, which add up to a total length of 380 m, is unique in terms of shape, length and mitre cut. It required the perfect cooperation between the HAURATON project team, the CAD team as well as the production side to manufacture and deliver these channels within a very short delivery deadline.

Overall, the following HAURATON drainage channels were installed at the Mercedes-Benz museum:

- 1500 m of individually manufactured channels in straight, polygonal and radial shapes
- □ 220 m FASERFIX SUPER channels

RECYFIX® PLUS

RECYFIX[®] STANDARD

SLOTTED CAHNNELS

FASERFIX® Standard

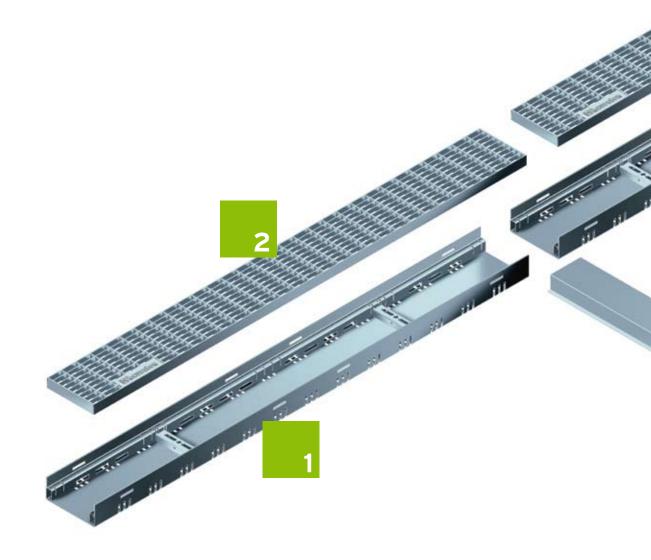
RECYFIX®POINT FASERFIX®POINT

DACHFIX[®]

RECYFIX® GREEN SUPER

UNIQUE AND RELIABLE DRAINAGE. FOR DRAINING ROOF TERRACES AND FAÇADES.

DACHFIX channels comply with the guidelines for flat roof construction and are suitable for pedestrian and wheelchair traffic.



RECYFIX® PLUS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT



LINEFIX®

111111

HEERE

Channels made of galvanised steel, stainless steel or PE-PP with fix installation height with or without height adjustment, big installation heights for economic installation



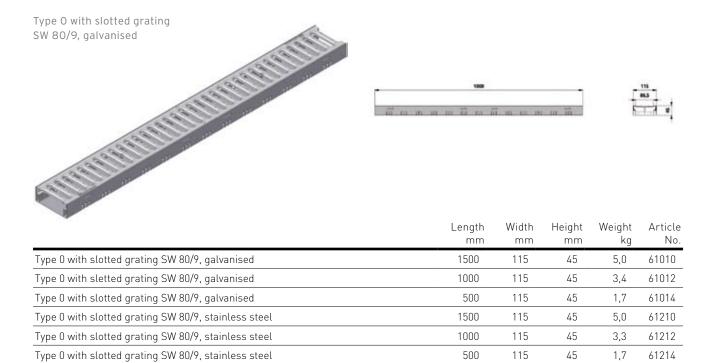
different grating options, for exemple mesh gratings



Intersection channel for backwater free inlet of the water to the outlet

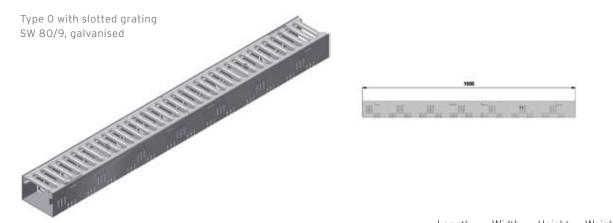
DACHFIX GULLY extension made of galvanised or stainless steel, with fix installation height with or without height adjustment, fitting grating options

DACHFIX® - Channel with slotted grating, not height adjustable 45 mm



The quality of the stainless steel material is according CNS 1.4301.

DACHFIX® - Channel with slotted grating, not height adjustable 75 mm



	Length mm	Width mm	Height mm	Weight kg	Article No.
Type 0 with slotted grating SW 80/9, galvanised	1500	115	75	5,7	61110
Type 0 with slotted grating SW 80/9, galvanised	1000	115	75	3,8	61112
Type 0 with slotted grating SW 80/9, galvanised	500	115	75	2,0	61114
Type 0 with slotted grating SW 80/9, stainless steel	1500	115	75	5,7	61310
Type 0 with slotted grating SW 80/9, stainless steel	1000	115	75	3,8	61312
Type 0 with slotted grating SW 80/9, stainless steel	500	115	75	2,0	61314

The quality of the stainless steel material is according CNS 1.4301.



DACHFIX[®] - Channel with mesh grating, not height adjustable 45 mm

Type O with mesh grating

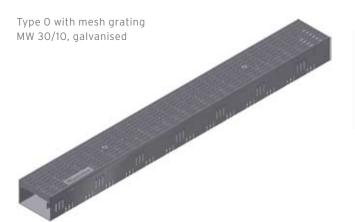




	Length mm	Width mm	Height mm	Weight kg	Article No.
Type 0 with mesh grating MW 30/10, galvanised	1500	115	45	6,9	61020
Type 0 with mesh grating MW 30/10, galvanised	1000	115	45	4,6	61022
Type 0 with mesh grating MW 30/10, galvanised	500	115	45	2,3	61024
Type 0 with mesh grating MW 30/10, stainless steel	1500	115	45	7,0	61220
Type 0 with mesh grating MW 30/10, stainless steel	1000	115	45	4,7	61222
Type 0 with mesh grating MW 30/10, stainless steel	500	115	45	2,4	61224

The quality of the stainless steel material is according CNS 1.4301.

DACHFIX[®] - Channel with mesh grating, not height adjustable 75 mm





Width

mm

115

115

115

115

115

115

Height

mm

75

75

75

75

75

75

Length

1500

1000

500

1500

1000

500

mm

Article

61120

61122

61124

61320

61322

61324

No.

Weight

kg

7,6

5,1

2,6

7,8

5,2

2,6

RECYFIX® PLUS

RECYFIX® STANDARD

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT **FASERFIX®**POINT

DACHFIX®

RECYFIX® GREEN SUPER

The quality of the stainless steel material is according CNS 1.4301.

Type 0 with mesh grating MW 30/10, galvanised

Type 0 with mesh grating MW 30/10, galvanised

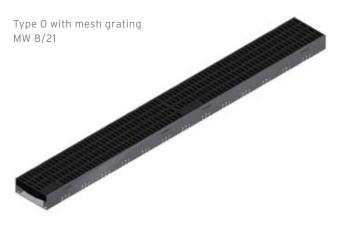
Type 0 with mesh grating MW 30/10, galvanised

Type 0 with mesh grating MW 30/10, stainless steel

Type 0 with mesh grating MW 30/10, stainless steel

Type 0 with mesh grating MW 30/10, stainless steel

DACHFIX® - Channel made of stainless steel with PE-PP grating, black, not height adjustable 45 mm

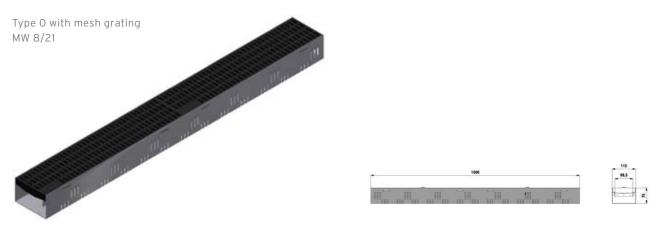




	Length mm	Width mm	Height mm	Weight kg	Article No.
Type 0 with mesh grating MW 8/21	1500	115	45	4,4	61230
Type 0 with mesh grating MW 8/21	1000	115	45	3,0	61232
Type 0 with mesh grating MW 8/21	500	115	45	1,5	61234

The quality of the stainless steel material is according CNS 1.4301.

DACHFIX[®] - Channel made of stainless steel with PE-PP grating, black, not height adjustable 75 mm

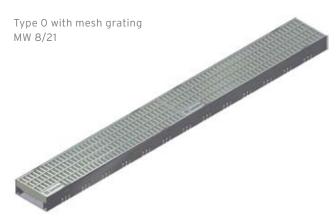


	Length mm	Width mm	Height mm	Weight kg	Article No.
Type 0 with mesh grating MW 8/21	1500	115	75	5,1	61330
Type 0 with mesh grating MW 8/21	1000	115	75	3,5	61332
Type 0 with mesh grating MW 8/21	500	115	75	1,8	61334

The quality of the stainless steel material is according CNS 1.4301.



DACHFIX® - Channel made of stainless steel with PE-PP grating, silver, not height adjustable 45 mm

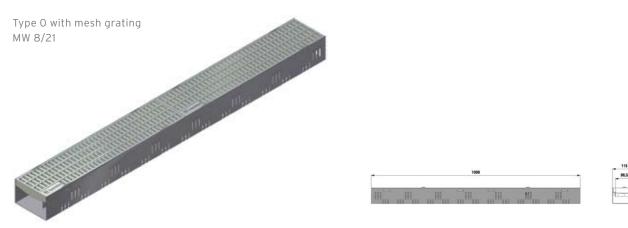




	Length mm	Width mm	Height mm	Weight kg	Article No.
Type 0 with mesh grating MW 8/21	1500	115	45	4,4	61240
Type 0 with mesh grating MW 8/21	1000	115	45	3,0	61242
Type 0 with mesh grating MW 8/21	500	115	45	1,5	61244

The quality of the stainless steel material is according CNS 1.4301.

DACHFIX® - Channel made of stainless steel with PE-PP grating, silver, not height adjustable 75 mm



	Length mm	Width mm	Height mm	Weight kg	Article No.
Type 0 with mesh grating MW 8/21	1500	115	75	5,1	61340
Type 0 with mesh grating MW 8/21	1000	115	75	3,5	61342
Type 0 with mesh grating MW 8/21	500	115	75	1,8	61344

The quality of the stainless steel material is according CNS 1.4301.

LINEFIX®

RECYFIX® PLUS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT

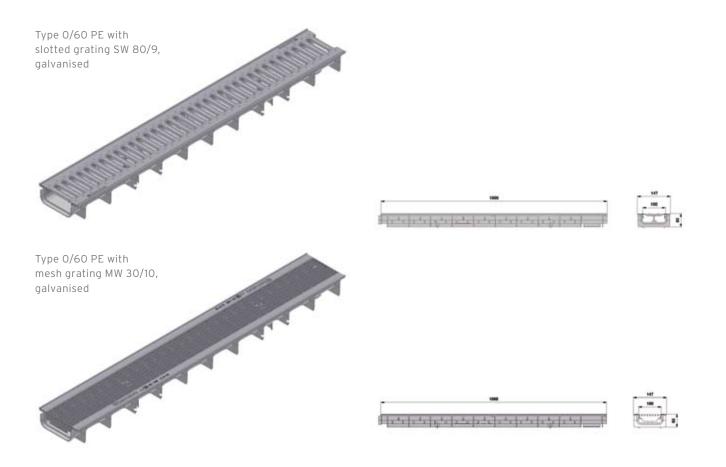
DACHFIX[®]

RECYFIX® GREEN SUPER

RECYFIX® GREEN STANDARD

RECYFIX® STREIF

DACHFIX® - Channel made of PE-PP, not height adjustable 60 mm



	Length mm	Width mm	Height mm	Weight kg	Article No.
Type 0/60 PE with slotted grating SW 80/9, galvanised	1000	147	60	3,0	61412
Type 0/60 PE with slotted grating SW 80/9, stainless steel	1000	147	60	3,0	61413
Type 0/60 PE with mesh grating MW 30/10, galvanised	1000	147	60	4,2	61422
Type 0/60 PE with mesh grating MW 30/10, stainless steel	1000	147	60	4,2	61423

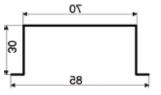
The quality of the stainless steel material is according CNS 1.4301.



DACHFIX® - Accessories







Adjusting set for DACHFIX Type O, height 75 mm

Cross-intersection channel





End cap

End cap

	Length mm	Width mm	Height mm	Weight kg	Article No. gal- vanised	Article No. stainless steel
End cap	-	115	45	-	61009	61209
End cap	-	115	75	-	61109	61309
End cap closed, made of PE-PP, for type 60	-	147	60	-	40284	-
Cross-intersection channel	1000	70	30	0,7	60800	60801
Adjusting set for DACHFIX Type 0, height 75 mm	-	-	_	0,2	61150	61350

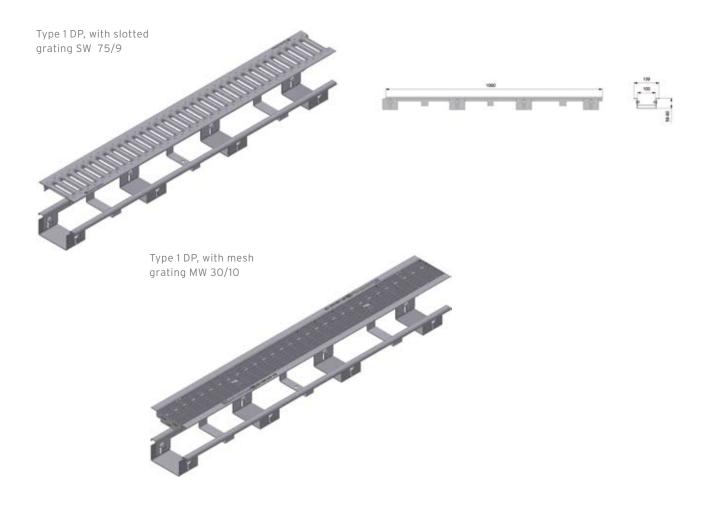
The quality of the stainless steel material is according CNS 1.4301.

RECYFIX® PLUS

DACHFIX[®]

LINEFIX®

DACHFIX®STANDARD - Channel Type 1, galvanised, height adjustable



	Length mm	Width mm	Height mm	Weight kg	Article No.
Type 1 DP, with slotted grating SW 75/9	1000	139	58 - 90	4,7	60070
Type 1 DP, with slotted grating SW 75/9	500	139	58 - 90	2,4	60073
Type 1 DP, with mesh grating MW 30/10	1000	139	58 - 90	6,6	60080
Type 1 DP, with mesh grating MW 30/10	500	139	58 - 90	3,1	60083
Type 1 DP, with perforated grating diam. 6	1000	139	58 - 90	5,6	60078

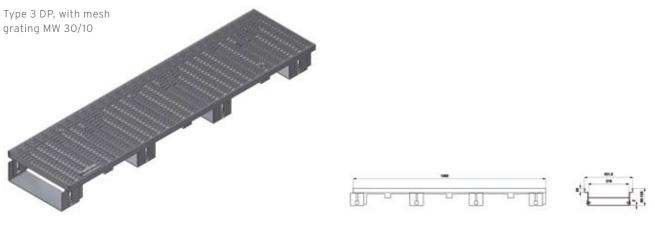


DACHFIX®STANDARD - Channel Type 2, galvanised, height adjustable



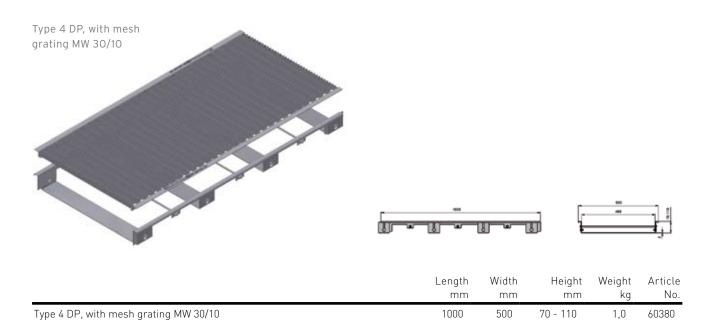
	Length mm	Width mm	Height mm	Weight kg	Article No.
Type 2 DP, with slotted grating SW 75/9	1000	139	110 - 160	5,3	60170
Type 2 DP, with mesh grating MW 30/10	1000	139	110 - 160	7,2	60180
Type 2 DP, with perforated grating diam. 6	1000	139	110 - 160	8,7	60178

DACHFIX®STANDARD - Channel Type 3, galvanised, height adjustable



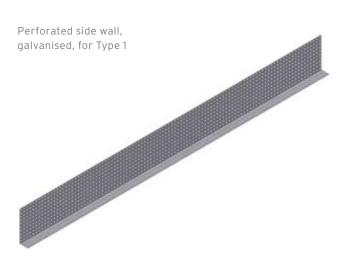
	Length	Width	Height	Weight	Article
	mm	mm	mm	kg	No.
Type 3 DP, with mesh grating MW 30/10	1000	252	90 - 130	9,2	60280

DACHFIX®STANDARD - Channel Type 4, galvanised, height adjustable



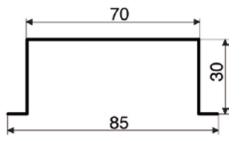


DACHFIX®STANDARD - Accessories



Cross-intersection channel





	Length mm	Width mm	Height mm	Weight kg	Article No. galvanised	Article No. stainless steel
Perforated side wall, galvanised, for Type 1	1000	29	50	0,3	60700	-
Perforated side wall, galvanised, for Type 1	500	29	50	0,2	60706	-
Perforated side wall, galvanised, for Type 2	1000	27	100	0,4	60721	-
Perforated side wall, galvanised, for Type 3/4	1000	32	70	0,6	60741	-
Cross-intersection channel	1000	70	30	0,7	60800	60801

LINEFIX®

RECYFIX® STREIF

RECYFIX® PLUS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT

DACHFIX®

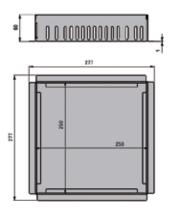
RECYFIX® GREEN STANDARD GREEN SUPER

DACHFIX®POINT

DACHFIX®POINT - Type 1, not height adjustable 60 mm, 250 x 250 mm

Gully extension Type 1 with slotted grating, galvanised

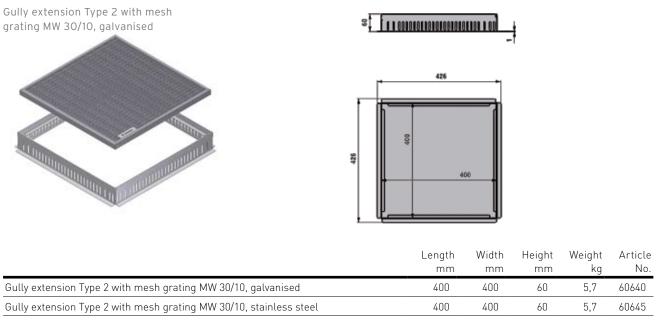




	Length mm	Width mm	Height mm	Weight ka	Article No.
Gully extension Type 1 with slotted grating, galvanised	250	250	60	1.7	60620
Gully extension Type 1 with mesh grating, MW 30/10, galvanised	250	250	60	1,4	60610
Gully extension Type 1 with slotted grating, stainless steel	250	250	60	1,7	60625
Gully extension Type 1 with mesh grating MW 30/10, stainless steel	250	250	60	1,4	60615

The quality of the stainless steel material is according CNS 1.4301.

DACHFIX®POINT - Type 2, not height adjustable 60 mm, 400 x 400 mm



The quality of the stainless steel material is according CNS 1.4301.

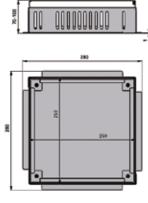


DACHFIX®POINT

DACHFIX®POINT - Type 1, height adjustable, 250 x 250 mm

Gully extension Type 1 with slotted grating, galvanised

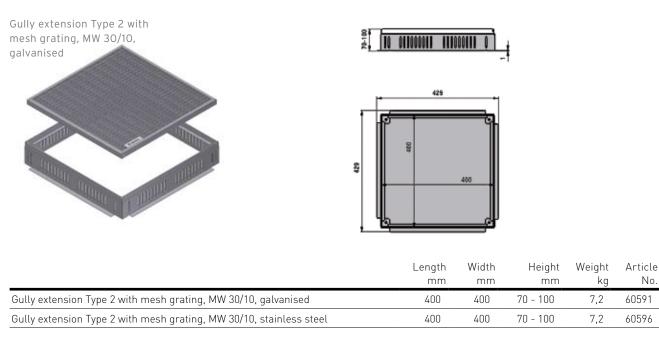




	Length mm	Width mm	Height mm	Weight kg	Article No.
Gully extension Type 1 with slotted grating, galvanised	250	250	70 - 110	4,3	60542
Gully extension Type 1 with mesh grating, MW 30/10, galvanised	250	250	70 - 110	4,0	60541
Gully extension Type 1 with slotted grating, stainless steel	250	250	70 - 100	4,3	60547
Gully extension Type 1 with mesh grating, MW 30/10, stainless steel	250	250	70 - 100	4,0	60546

The quality of the stainless steel material is according CNS 1.4301.

DACHFIX®POINT - Type 2, height adjustable, 400 x 400 mm



The quality of the stainless steel material is according CNS 1.4301.

RECYFIX® PLUS

RECYFIX® STANDARD

SLOTTED CAHNNELS

FASERFIX® Standard

No.

RECYFIX®GREEN SUPER

VERY STRONG AND ENVIRONMENTALLY FRIENDLY. GROUND REINFORCEMENT AND EFFICIENT SOAKAWAY FOR CAR/COACH PARKS, SERVICE ROADS AND INDUSTRIAL AREAS.





AT A GLANCE

- ✓ High draining capacity
- Can be filled with different materials
- ☑ Easy to install
- ☑ Durable and resistant to weather
- Less weight than grass concrete systems

RECYFIX[®]GREEN SUPER

VERY STRONG AND ENVIRONMENTALLY FRIENDLY. GROUND REINFORCEMENT AND EFFICIENT SOAKAWAY FOR CAR/COACH PARKS, SERVICE ROADS AND INDUSTRIAL AREAS.

REQUIREMENTS

Today more than ever we are concerned about the increasing acreage of surface area covered over. The increased incidence of flooding catastrophes in the wake of prolonged rainfall periods indicates that too much water runs directly into the rivers and lakes rather than seeping into the ground naturally. The continuing extension of infrastructure elements in addition to construction activities on green-field sites for residential or commercial purposes are responsible for the fact that not enough precipitation water can be absorbed by the ground. The ground is being covered over for vehicular traffic using impervious surface materials. Today we are aware of an increased responsibility to take environmental protection seriously and preserve as much of the natural ground seepage areas as possible or to reclaim new ones. In order to reinforce the ground we need products with a high drainage capacity and - at the same time and depending on the exposure to traffic - sufficient strength to withstand the expected static and dynamic loads.

Some surfaces also have to stand up to the loads imposed by larger vehicles, such as HGVs, coaches or agricultural vehicles. The turf in parkland areas generally requires more attention. For this reason, landscape architects increasingly stipulate mineral-based fill materials, such as chippings. By choosing different colours and materials it is possible to make use of this element in order to achieve certain design effects. In view of concerns for the ecology and careful use of resources, our products are manufactured from 100% recycled materials, which can again be recycled at the end of the products' service life. In order to ensure the consistency of our raw materials, we only use industrial recycled PE.



RECYFIX GREEN SUPER blocks are particularly suitable for filling with mineral materials such as decorative gravel or chippings.

RECYFIX® Standard

SLOTTED CAHNNELS

SOLUTION

RECYFIX GREEN SUPER is ideal for reinforcing driveways suitable for vehicles and allowing fast open drainage at the same time. The blocks are manufactured from industrial recycled material and can again be recycled at the end of their useful life. The recycled material used is highly flexible. The combination of materials and construction used in the DBGM-registered design is capable of absorbing longitudinal expansion and is strong enough to support heavy vehicles. Owing to their solid construction these blocks can withstand higher dynamic loads compared to conventional plastic lattice turf blocks and are therefore suitable for installation in surfaces used by commercial or agricultural vehicles. Compared to grass concrete systems RECYFIX GREEN SUPER is extremely lightweight and hence easy to transport and lay. Filling materials can be gravel, chippings, stone, earth or turf - nearly all available materials, which will hardly be visible in contrast to neighbouring surfaces.

The lattice turf blocks feature integrated anchors for safe location in the ground as well as a linkage system for holding the blocks together. Where the blocks are laid on sloping ground or on embankments they can be additionally fastened with Anchoring Pegs. RECYFIX GREEN SUPER has excellent ground drainage characteristics, leaving most of the reinforced ground open for water percolation. This means that precipitation water can find its way to the natural reservoirs in the ground rather than being channelled away to rivers and lakes - an active contribution to flood protection.

APPLICATION AREAS

All traffic areas with occasional usage, such as exhibition areas, parking lots for passenger cars, camping places, trailer home parks, temporary parking areas, driveways on golf courses, access ways for fire fighting vehicles and rescue vehicles etc.





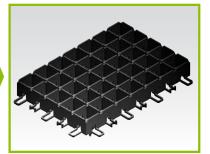
RECYFIX®GREEN SUPER

VERY STRONG AND ENVIRONMENTALLY FRIENDLY.

GROUND REINFORCEMENT AND EFFICIENT SOAKAWAY FOR CAR/COACH PARKS. SERVICE ROADS AND INDUSTRIAL AREAS.





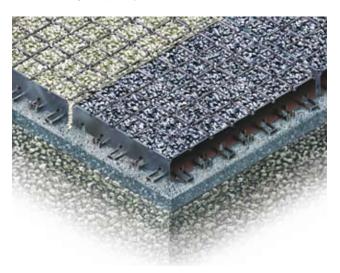


100% RECYCLED PE

RECYFIX GREEN SUPER are made of 100% industrial recycled PE. The material is UV-stabilised and environmentally neutral - green light for soil and ground water. When the product has to be disposed off there is another bonus point for the environment - RECYFIX GREEN SUPER can be recycled 100%. The excellent properties of this recycled material ensure very good durability and a long service life. It will not break, crack or split and even high temperature fluctuations, UV-radiation, frost and road salt cannot damage lattice turf blocks if used appropriately.

DIFFERENT MATERIALS CAN BE USED FOR FILLING

For filling RECYFIX GREEN SUPER blocks, mineral materials such as chippings, gravel or stone are particularly suited, depending on the requirements for the reinforced area. A natural look of greenery can be achieved with seeded lawn or turf with the appropriate care. Either way, the areas reinforced with the blocks will retain most of their drainage capacity.



DRIVE ON IMMEDIATELY AFTER INSTALLATION

Once RECYFIX GREEN SUPER has been laid and filled with the respective mineral materials it can support loads to its capacity immediately. For this reason they are well suited for temporary parking areas that may be required for trade fairs, festivities etc.



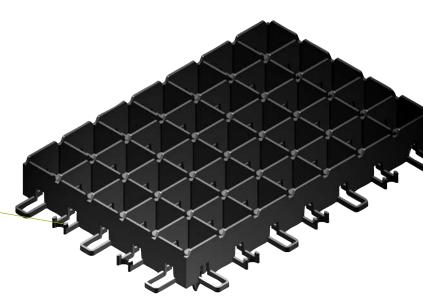
FAST AND EASY TO LAY

RECYFIX GREEN SUPER blocks are light-weight. That means installation only requires simple tools and little effort to achieve a very large output. There is no need for special machines to lay the blocks. The lattice turf blocks have been packaged in a way that makes it possible to pick them up directly from the pallet before laying them. In this way, even large areas can be covered within a short space of time.

ECOLOGICAL AND ECONOMICALLY SENSIBLE

Today, many municipalities and local authorities grant reduced rates and public funds for the purpose of creating surfaces that retain their draining properties so that the installation of RECYFIX GREEN SUPER also makes financial sense.





TECHNICAL DATA

□ RECYFIX GREEN SUPER Material: 100 % industrial recycled PE, highly impact resistant, UV-stabilised, Colour: black The recycling process may result in variations in colour. Openings for root penetration: > 50 % Load-bearing capacity: tested distributed load when installed: max. 4,000 kN/m² Dimensions: L 600 x W 400 x H 75 mm

Coverage: approx. 4 blocks per m², including joints Weight: approx. 2.5 kg/block article no.: 40060

□ RECYFIX Anchoring Pegs

for additional anchoring on sloping ground Material: 100 % pure recycled ABS-plastic, highly impact-resistant Colour: black Length: 250 mm Weight: approx. 20 g/peg

article no.: 40020

TENDER PROPOSALS

1. ____ m² = no.

RECYFIX GREEN SUPER

Turf honeycomb made of 100% industrial recycled PE, highly impact-resistant, UV-stabilised, also suitable for mineral fill materials, with joint connection system, colour black, tested distributed load max. 4000 kN/m², I/w/h 600x400x75 mm, art. no. 40060. To be supplied and laid in accordance with the manufacturer's installation instructions. Coverage approx. 4 blocks per m2. Quality in acc. with DIN EN ISO 9001:2000 Manufactured by: Hauraton GmbH & Co. KG P. O. Box 16 61 D-76437 Rastatt, Germany Tel.: +49-7222-958-0 Fax: +49-7222-958-102 E-Mail: export@hauraton.com

2. ____ no.

RECYFIX GREEN ANCHORING PEGS

made of 100% pure recycled ABS-plastic, highly impact-resistant, length 250 mm, art. no. 40020

RECYFIX[®]GREEN STANDARD

ENVIRONMENTALLY FRIENDLY, LIGHT AND ROBUST. GRASS REINFORCEMENT AND SOAKAWAY FOR AREAS WITH LIGHT TRAFFIC.





AT A GLANCE

- Super light-weight, hence easy and quick to install
- 🗹 Easy to transport

0

- ✓ Proportion of lawn 90%
- Resistant to weather
- ☑ Erosion protection, stabilises the turf

RECYFIX®GREEN STANDARD

ENVIRONMENTALLY FRIENDLY, LIGHT AND ROBUST GRASS REINFORCEMENT AND SOAKAWAY FOR AREAS WITH LIGHT TRAFFIC.

REQUIREMENTS

Green space is an important part of the human environment. Sealing areas with light traffic usage with concrete/asphalt/paving slabs means a further reduction of vital green space. Decentralised ground seepage of precipitation water is an ecological requirement of increasing importance. In view of concerns for the ecology, modern innovative products should not only be manufactured from 100 % recycled HD-PE, but should also be fully recyclable themselves. In order to ensure consistent quality of the raw material, only non-mixed recycled materials should be used.

SOLUTION

RECYFIX GREEN STANDARD can be used to turn all occasional parking areas for passenger cars in public and domestic spaces into reinforced lawn areas for parking. Whilst the substrate is reinforced, the turf component is still 90%. And with RECYFIX GREEN STANDARD reinforcement, these lawn areas can support substantial weight. RECYFIX GREEN STANDARD meets the requirements of DIN 14090. Compared to paved surfaces, reinforced lawn areas have a lower run-off factor, which allows precipitation water to seep into the substrate provided the base layers are not impervious.





FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT

DACHFIX®

RECYFIX® GREEN SUPER

RECYFIX® STREIF

LINEFIX®





RECYFIX GREEN STANDARD can be used to reinforce grassed areas whilst allowing water to seep into the ground.

APPLICATION AREAS

All grassed areas with occasional vehicular usage such as car parking spaces but also pedestrian pathways and embankments etc. Also often used for emergency access ways for fire engines and rescue vehicles, for terraces, urban green spaces around trees, lawns and pathways in sports grounds (e.g. golf course pathways), camping places, holiday resorts, reinforcements for embankments and river banks.

These reinforcements are not suitable for filling with chippings or for areas with regular vehicular usage. In these cases we recommend the use of RECYFIX GREEN SUPER.

DIY INSTALLATION AT AN EQUESTRIAN PROPERTY





RECYFIX[®]GREEN STANDARD

ENVIRONMENTALLY FRIENDLY, LIGHT AND ROBUST GRASS REINFORCEMENT AND SOAKAWAY FOR AREAS WITH LIGHT TRAFFIC.



100% RECYCLED HD-PE

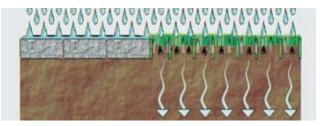
RECYFIX GREEN STANDARD consists of 100 % pure recycled HD-PE produced from bottle crates. The material is UV-stabilised and environmentally neutral - light green for soil and ground water. When the product has to be disposed off there is another bonus point for the environment - RECYFIX GREEN STANDARD can be recycled 100 %.

TESTED FOR DISTRIBUTED LOADS

RECYFIX GREEN STANDARD is light-weight and consists of a thin-walled mesh. At the same time, the special hexagonal construction on the base makes this reinforcement very strong. The material testing office of LGA Bavaria (Landesgewerbeanstalt Bayern) carried out tests in accordance with DIN 53454 and established possible distributed loads of approx. 200 tonnes per m². RECYFIX GREEN STANDARD is very well suited for grassed areas that are occasionally used for parking passenger cars, particularly in domestic situations. Another popular application is for temporary and short-term parking areas (for example for trade fairs and festivities etc.).

NATURAL DRAINAGE THROUGH GRASSED AREAS: PROTECTS US AND THE ENVIRONMENT

The continuing sealing off of the landscape through the construction of buildings, roads, squares etc. is a subject that concerns us all. The proportion of green space is in



decline - affecting our quality of life. At the same time, flooding events have become more frequent in recent years. One import cause for these events is the sealing up of our landscape. Rainwater does not always have the chance to seep away naturally therefore it becomes run off and accumulates in the rivers. RECYFIX GREEN STANDARD reinforcement is a step in the right direction. It will reinforce areas with occasional vehicular usage but also retain their character as a green space that is permeable to water.

NO FREQUENT TURF REINSTATEMENT REQUIRED

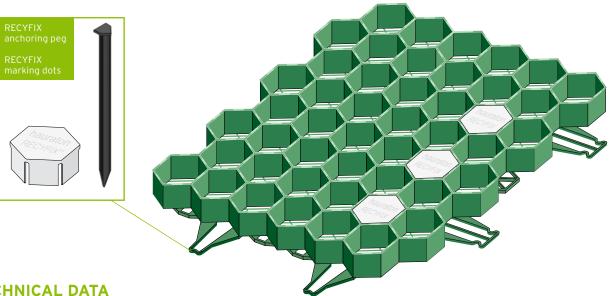
The honeycomb pattern ensures that the individual mats of RECYFIX GREEN STANDARD are interlinked and transfer loads. The resulting structure forms a homogenous surface, which will prevent the formation of ruts and tracks that are inevitable where vehicles drive across unreinforced grass areas. At the same time, grassed areas will be protected against the effects of mole infestations. The turn remains intact and you save later costs for grass reinstatement.

PROTECTION AGAINST EROSION

RECYFIX GREEN STANDARD provides good protection against soil erosion. In banks and embankments they prevent soil from sliding down the slope. For the application on slopes and embankments, RECYFIX anchoring Pegs are available for additional stability and safety.

QUICK AND EASY TO LAY

RECYFIX GREEN STANDARD is very light-weight; for example one mat of size 1 weighs only approx. 610 g, making it possible to cover large areas in very little time. Its special construction means that only simple tools and little effort is needed for installation.



TECHNICAL DATA

□ RECYFIX GREEN STANDARD Material: 100% pure recycled HD-PE, highly impact-resistant, UV-stabilised Colour: green The recycling process may result in variations in colour. Openings for root penetration: over 50%

Size 1 dimensions: approx. 387 mm x 334 mm x 38 mm Coverage: approx. 5.9 mats per m²

installation with fixed expansion joint (to compensate for longitudinal expansion)

Weight: approx. 610 g/piece article no.: 40000

Size 2 dimensions: approx. 387 mm x 555 mm x 38 mm coverage: approx. 3.8 mats per m² installation with fixed expansion joint (to compensate

for longitudinal expansion)

Weight: approx. 1000 g/piece

article no.: 40005

RECYFIX MARKING DOTS

to provide a visual demarcation between parking lots etc. Material: 100 % HD-PE, highly impact-resistant,UV-stabilised Colour: white Height: 38 mm Weight: approx. 20 g/piece article no.: 40015

RECYFIX ANCHORING PEGS

for additional anchoring on sloping ground Material: 100 % unmixed recycled ABS-plastic, highly impact-resistant Colour: black Length: 250 mm Weight: approx. 20 g/piece article no.: 40020

TENDER PROPOSALS

1. ____ m² = no.

RECYFIX GREEN STANDARD

Turf honeycomb made of 100% pure recycled HD-PE, highly impact-resistant, UV-stabilised, tested for distributed loads of max. 200 to/ m², length 387 mm, width 334/555 mm, height 38 mm, with joint linkage, quantity required: _____pieces/m², colour green, art. no. 40000/40005. To be supplied and laid in accordance with the manufacturer's installation instructions. Coverage approx. 5.9/3.8 blocks per m2, including fixed expansion joint. Quality in acc. with DIN EN ISO 9001:2000 Manufactured by: Hauraton GmbH & Co. KG P. O. Box 16 61

D-76437 Rastatt, Germany Tel.: +49-7222-958-0 Fax: +49-7222-958-102 E-Mail: export@hauraton.com

RECYFIX GREEN MARKING DOTS 2. no.

> from 100% HD-PE, highly impactresistant, UV-stabilised, white, height 38 mm, art. no. 40015

RECYFIX GREEN ANCHORING PEGS 3. <u>no.</u>

> made of 100% unmixed recycled ABS-plastic, highly impact-resistant, length 250 mm, art. no. 40020

LINEFIX®

FOR FLEXIBLE BORDER EDGING. THE EFFECTIVE WAY TO PROVIDE AN EDGE TO PATHS AND FLOWERBEDS.





AT A GLANCE

- Easy to install, without digging a trench and foundations
- ✓ Visually unobtrusive and yet very effective edging
- Can be installed in straight lines or in curves and bends

LINEFIX®

FOR FLEXIBLE BORDER EDGING. THE EFFECTIVE WAY TO PROVIDE AN EDGE TO PATHS AND FLOWERBEDS.

PROFESSIONAL EDGINGS FOR GARDENS, LANDSCAPES AND SPORTS GROUNDS

The edging for pathways, flowerbeds and lawn areas should be succinct but unobtrusive. The conventional concrete edging systems are seriously unattractive and have the further disadvantage, that they cannot easily follow curves and bends that are common in pathways and other borders. We therefore need edgings that are visually unobtrusive and can adapt to the shapes of pathways and borders. In addition, a barrier against root spread is required at the transitions between different areas, such as between lawn and paving or lawn and tamped area.

LINEFIX Borders are effective and visually unobtrusive and are easy and quick to install without having to dig trenches or lay foundations. They are fixed to the ground with matching Anchoring Pegs or steel nails and can be adapted to the shapes required by the landscape or design, even down to tight radii, depending on the system. In addition, LINIFIX Borders offer reliable protection against root spread between adjoining areas. Applications for the edgings range from private gardens through to public gardens, parks and sports grounds. With a length of 1500 mm, LINEFIX Borders have been designed with a view to professional applications in garden and landscape design. LINEFIX STANDARD consists of 100% pure recycled HD-PE. 100% and can again be 100% recycled to meet environmental recycling criteria. LINEFIX SUPER is manufactured from galvanised, corrosion-protected steel and can also be recycled.



REQUIREMENTS

LINEFIX Borders are effective and visually unobtrusive edgings made of pure recycled HD-PE or corrosionprotected steel for pathways, flowerbeds and lawn areas in gardening and landscaping.

LINEFIX®SUPER DBGM

These borders feature a connector flange at one end so that they can be fitted to each other via connection strap.

statestatest

LINEFIX®SUPER - Borders

	Length mm	Width mm	Height mm	Weight kg	Article No.
galvanised	1500	20	175	2,8	43210
stainless steel	1500	20	175	2,8	43230
Fixing anchor, galvanised	280		-	0,1	43250
Fixing anchor, stainless steel	280		-	0,1	43270

The quality of the stainless steel material is according CNS 1.4301.

RECYFIX® PLUS

RECYFIX® Standard

SLOTTED CAHNNELS

FASERFIX® Standard

RECYFIX®POINT FASERFIX®POINT

DACHFIX®

RECYFIX® GREEN SUPER

RECYFIX® GREEN STANDARD

LINEFIX®

FOR FLEXIBLE BORDER EDGING.

THE EFFECTIVE WAY TO PROVIDE AN EDGE TO PATHS AND FLOWERBEDS.

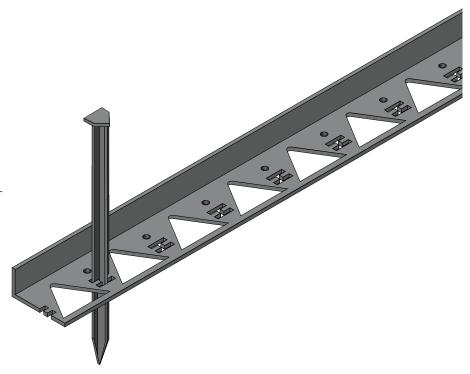
LINEFIX®STANDARD

Material: 100% pure recycled HD-PE, highly impact-resistant, UV-stabilised Colour: black

ANCHOR PEG

LINEFIX®STANDARD

Material: 100 % pure recycled ABSplastic, highly impact-resistant



LINEFIX®STANDARD - Borders

	Length mm	Width mm	Height mm	Weight kg	Article No.
made of PE-PP	1500	80	45	0,7	43110
Anchoring peg made of ABS-plastic	250		-	-	40020

Bigger lengths are available as taylor made solutions on request.

Minimal differences in the measurements are possible because of the recycled material.

For fixing steel nails could be used as an alternative.



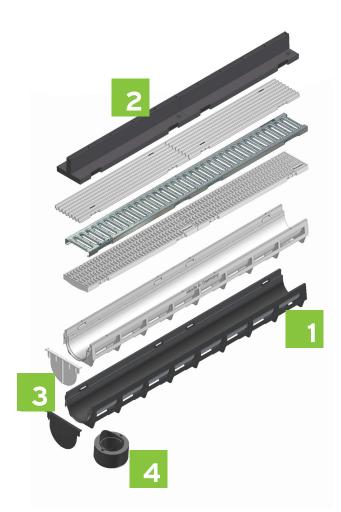
TOP

The cost effective drainage channel system for domestic use Perfect for drives, garages and gardens



TOP

The cost effective drainage channel system for domestic use Perfect for drives, garages and gardens







TOP Channel body available in silver and black made of corrosion resistant PE-PP with groove and tongue for easy installation



numerous grating options (longitudinal slotted grating, slotted grating, mesh grating and paverslot cover).

All grating are self locking in the channel body.

TOP -Joining set (in plastic bag):



■ PE-PP end caps available in silver and black for start and end of channel run (two per bag)



1 adapter including bolts for pipe connection DN 70/100

Furthermore an additional and detailed installation instruction is included in the plastic bag.

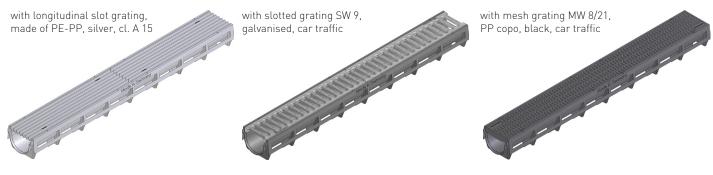
AT A GLANCE

- ☑ perfect for drives, garages and gardens
- easy to transport and quick to install
- end caps and installation advice make a complete system





TOP - Combi article, PE-PP Channel with grating



	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²	Weight kg	ltem No.
with longitudinal slot grating, made of PE-PP, silver, cl. A 15	1000	134	95	45	637	1,5	44080
with slotted grating SW 9, galvanised, car traffic	1000	134	95	45	256	1,9	44000
with mesh grating MW 8/21, PP copo, black, car traffic	1000	134	95	45	250	1,5	44050
with mesh grating MW 8/21, PP copo, silver, car traffic	1000	134	95	45	250	1,5	44200
with paverslot cover made of PPcopo, car traffic	1000	134	95	45	118	1,5	44150

Shipment only pallet-wise.

TOP - Combi article, PE-PP Channel with grating

TOP -Joining set incl. installation instruction for black channel





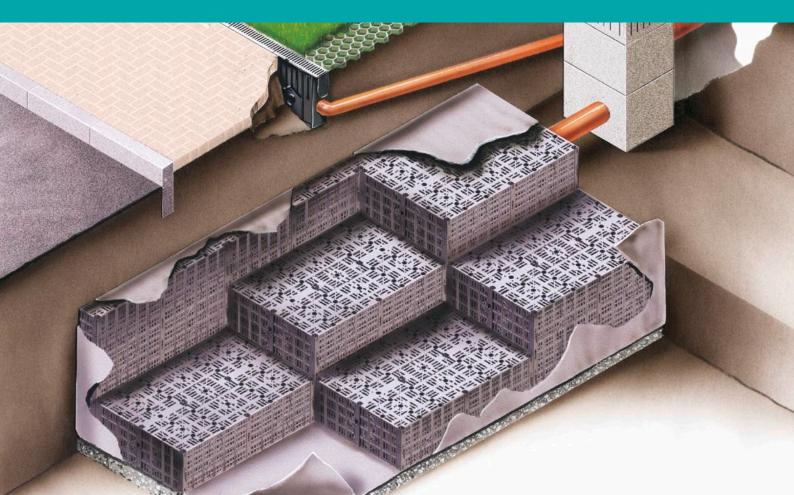
	Length mm	Width mm	Height mm	Drainage cross-sect. cm²	Intake cross-sect. cm²	Weight kg	ltem No.
TOP -Joining set incl. installation instruction for black channel	-	-	-	_	_	0,2	44100
TOP -Joining set incl. installation instruction for silver channel	-	-	-	_	_	0,2	44140
Access cover for paverslot, galvanised, 0,5 m (can be used with one cover of item-no. 44150)	500	129	58	-	-	2,0	44160

CIVILS LANDSCAPING AQUA SPORT			
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AQUA

THE RANGE FOR INFILTRATION SOLUTION





THE RANGE FOR INFILTRATION SOLUTION

EFFECTIVE INFILTRATION SYSTEMS SUPPORT THE NATURAL WATER CYCLE AND PROVIDE SUSTAINABLE SUPPORT FOR VITAL RESOURCES.

Water is one of the most valuable resources on earth. Water means life. However, in densely ,populated countries the natural water cycle is significantly affected by ground surfaces being sealed off. Natural infiltration of rainwater is reduced more and more, resulting in the groundwater level sinking and ground drying out.

In order to counteract these developments we require systems that store rainwater at the place of precipitation and then release it gradually back into the natural cycle. With our infiltration products we offer an intelligent way of achieving this. The HAURATON storage elements are suitable for installation underneath traffic areas in trading and housing estates as well as under drives with passenger car usage in private residential areas. The areas above the system remain usable.

HAURATON supports the design team by providing calculations for the sizing of the infiltration system and construction details, ensuring long-term functionality of the installation. With the help of our expert knowledge and advice for installation and servicing, contractors find it easy to deliver perfect results.

HAURATON works in accordance with the regulations for infiltration systems and offers customers a service based on the latest state of technology.





THE HAURATON DESIGNER PACKAGE



DRAINFIX[®]BLOC STABLE, SAFE AND EXTREMELY STRONG



DRAINFIX®TWIN HIGH VOLUME IN THE SMALLEST SPACE

THE HAURATON DESIGNER PACKAGE

HAURATON IS NOT ONLY INVOLVED IN THE DEVELOPMENT OF INNOVATIVE PRODUCTS, THE COMPANY WILL ALSO SUPPORT YOU IN THE DESIGN AND IMPLEMEN-TATION OF YOUR PROJECTS.

INDIVIDUAL SUPPORT FOR THE SYSTEM DESIGNER

Designing solutions for the many and diverse requirements in the field of infiltration requires detailed knowledge, great expertise and extensive experience. Our experts, both in field sales as well as in the office, are fully trained to answer technical and product-specific questions to be able to provide you with competent and individual advice. We will support your individual building project from project→-related tender documents through to installation – even where the brief calls for unusual duties and design. Give us a call or send us an email! We are always available for you and look forward to solving your individual questions regarding infiltration solutions.

SYSTEM DESIGN

The functionality of an infiltration system depends largely on various conditions, such as the local precipitation data, the absorptive properties of the soil and the computation of catchment areas. In order to make it easier for you to make an informed decision about the type, size and installation of the infiltration systems, we produce calculations for your specific site. Our calculations are free of charge and are based on DWA-A 138. All we need from you for the staff in our specialist department is some detailed information which you can enter in the calculation sheet for our DRAINFIX products. These parameters will be entered into the calculations. If you wish to make use of our service, please do not hesitate to contact our experts in-house and in field sales.





Cross Section DRAINFIX BLOC (1200x800)

M 1: 20

Geotextile GRK 3

83

330

330

20

600

83

660

Ventilation though inlet shaft

OUR ADVANTAGES FOR DESIGNERS

Highly reliable design solutions based on products and processes with in-house and external quality monitoring

Individual support for your designs

Service free of charge: calculations for determining the size of the infiltration structure, project-specific specification texts and installation advice

HAURATON IS A MEMBER OF THE RAL QUALITY ASSOCIATION FOR WATER SYSTEMS E.V.

508

800

RAL (German Institute for Quality Assurance and Certification e.V.) is an organisation in charge of securing high quality levels of products and services. Only RAL, the head organisation of currently 131 quality organisations, is authorised to award quality marks in Germany. HAURATON is a member of this quality association and can therefore offer the highest level of product certification.

DRAINFIX CALCULATION SHEET

Each HAURATON designer folder contains a DRAINFIX calculation sheet to be used by the system designer to enter all required data for calculating the volume and size of infiltration facility. On the basis of these data, HAURATON will provide free-of-charge calculations base on DWA-A 138.



DESIGN PRINCIPLES FOR INFILTRATION STRUCTURES

THE DIMENSIONS OF AN INFILTRATION STRUCTURE DEPEND ON A NUMBER OF ESSENTIAL PARAMETERS.

WHY INFILTRATION?

The continuing sealing off of surfaces through the construction of residential and commercial buildings and roads seriously affects the natural water cycle. In urban areas with average densities only about one quarter of the stormwater volume can infiltrate the ground. The largest part has to be drained away via the drainage systems. Defunct and inadequately sized drainage networks are no longer capable of handling these quantities of water. Natural soils and layers of vegetation provide storage for the stormwater and then release it again to the ground water with a time delay after it has been filtered. As surfaces are sealed on construction sites, this process can no longer take place on an adequate scale. The result is the reduction of groundwater level and soils drying out. Another negative effect is the increasing risk of flooding catastrophes as well as the continuing need to construct costly drainage networks and retention basins. In order to counteract these developments we require systems that store stormwater at the place of precipitation and then release it gradually back into the natural cycle.



Figure 1: Original condition of site. Rainwater can soak away into the open soil Utilisation of drains max. 80 %.

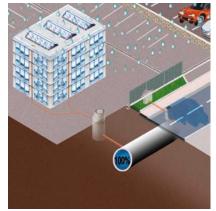


Figure 2: Buildings are erected on the site, the surface is sealed off. Precipitation water can no longer infiltrate the soil and is fully drained into the drainage system. This leads to an overload on the drainage system and hence to high costs for repair and upgrading.



Figure 3: Decentralised infiltration via soak-away structure with infiltration blocks: precipitation water runs into the infiltration structure via channels or pipe drainage or directly from surfaces with infiltration capacity, such as turf. Advantages: less surface area required, less load on the drainage network, the surfaces above the infiltration structure remain usable.

COMMERCIAL REASONS

Constant upgrading work as well as the operation and maintenance of drainage networks and retention basins drives up the costs for local authorities. The effect this has on sewage charges is something we can all feel in our pockets. Many municipalities recommend and support with grants the construction of decentralised infiltration systems on building sites when areas are opened up for new developments. This ecological commitment can also bring financial benefits from grants or reduced levies and charges.

ADVANTAGES COMPARED TO CONVENTIONAL GRAVEL INFILTRATION STRUCTURES

□ lightweight

- compact dimensions
- □ very high storage volume

Today many infiltration systems are built in the form of swales. However, these need a lot of space and are not very popular with nearby residents so that this solution is not very suitable for residential and commercial areas. A more compact version are infiltration structures underground, consisting of beds of gravel surrounded with geotextiles. The main disadvantage of these systems is the relatively small storage volume because only 30% of the overall volume is available for the storage of water. It follows therefore that in order to achieve the same capacity as an infiltration structure based on the DRAINFIX BLOC system, one has to excavate 3 times the amount of soil.

COMPLETE SYSTEM PROVIDER

Each infiltration structure has to meet a specific set of parameters and has to be adapted to the conditions on site. A range of different infiltration systems is available, which can be extended by additional components (e.g. sedimentation systems or manholes), depending on requirements. At HAURATON your will get everything you need from one port of call. Our service covers expert advice through to help with sizing and finally helpful tips for installing and operating the system. Likewise, you will get all the parts you need for the system from one supplier. Our product range includes several sedimentation systems, infiltration structures and manholes as well as the complete range of accessories. Design and build your infiltration system with HAURATON.



ADVANTAGE 1: LESS SOIL TO EXCAVATE





Excavated soil DRAINFIX BLOC or DRAINFIX TWIN Excavated soil for conventional gravel

ADVANTAGE 2: LARGER WATER STORAGE VOLUME



Volume of water stored with **DRAINFIX** BLOC or **DRAINFIX** TWIN



Volume of water stored in conventional gravel

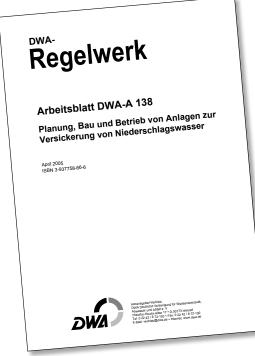
DESIGN PRINCIPLES FOR INFILTRATION STRUCTURES

THE DIMENSIONS OF AN INFILTRATION STRUCTURE DEPEND ON A NUMBER OF ESSENTIAL PARAMETERS.

SIZING IN ACCORDANCE WITH DWA-A 138

The regulations issued by the Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V., (German association for water and wastewater management and refuse), abbreviated DWA, in Germany are considered the generally accepted basis for the design, construction and operation of water, wastewater and waste management systems as well as the protection of the soil. Infiltration structures are covered in worksheet DWA-A 138. According to that, the following parameters need to be taken into consideration for sizing an infiltration structure:

- \Box catchment area and run-off factor
- □ soil conditions and permeability, k_f-value
- □ rain yield and occurrence of rain
- □ groundwater



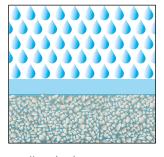
CATCHMENT AREAS

This includes all areas from which precipitation water runs into the infiltration system. The important parameters are the degree of water permeability (run-off value) and planned usage. For example, the water coming off an area of turf is different in quantity and quality to that coming off a road.

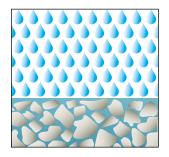
TYPE OF SURFACE	SUGGESTED MEAN RUN-OFF VALUES $\Psi_{\rm m}$ FOR TYPE OF SURFACE FINISH
Sloping roof	metal, glass, slate, fibre cement: 0.9–1.0
	tiles, roofing felt: 0.8–1.0
Flat roof	metal, glass, fibre cement: 0.9–1.,0
(slope up to 3° or approx. 5%)	roofing felt: 0.9
	gravel: 0.7
Green roof	with \leftarrow 10 cm humus layer: 0.5
(slope up to 15° or approx. 25%)	with $ ightarrow$ 10 cm humus layer: 0.3
Roads,	asphalt, concrete without joints: 0.9
pathways and squares (level)	paving with closed joints: 0.75
Squares (level)	firm gravel topping: 0.6
	paving with open joints: 0.5
	loose gravel topping, turf on broken stone: 0.3
	interlocking pavers with joints, draining pavers: 0.25
	turf pavers: 0.15
Banks, hard	clayey soil: 0.5
shoulders and ditches	loamy sand soil: 0.4
	gravel and sand soil: 0.3
Gardens, mea-	level terrain: 0.0–0.1
dows and agri- cultural land	sloping terrain: 0.1–0.3

SOIL PROPERTIES, k,-VALUE

The properties of the soils are of critical importance for the infiltration characteristics. Sandy soils or those with a gravel content have a lower infiltration factor kf and hence allow significantly more infiltration than those with a high clay content. This k_f -value is determined by the grain size, composition and volume of the material in the soil and indicates how fast water can infiltrate (soak away). Soils with good infiltration characteristics have k_f -values between 10⁻³ m/s and 10⁻⁶ m/s and range from sandy gravel to sandy silt.



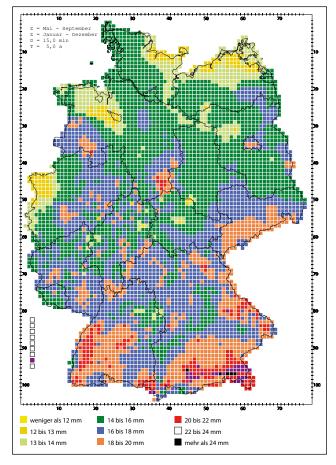
small grain size low permeability



big grain size high permeability

RAIN YIELD AND OCCURRENCE IN ACC. W. DWA-M 153 AND DWA-A 138

We will determine the rain yield for the location of your infiltration structure on the basis of the KOSTRA data, a long-term collection of data by the German Weather Service. These data list the quantity, duration and intervals of rain for every location in Germany. The calculation is based on the most unfavourable precipitation values, thus ensuring an adequate safety factor.



Map of Germany showing precipitation quantities (in litres per second and hectare)

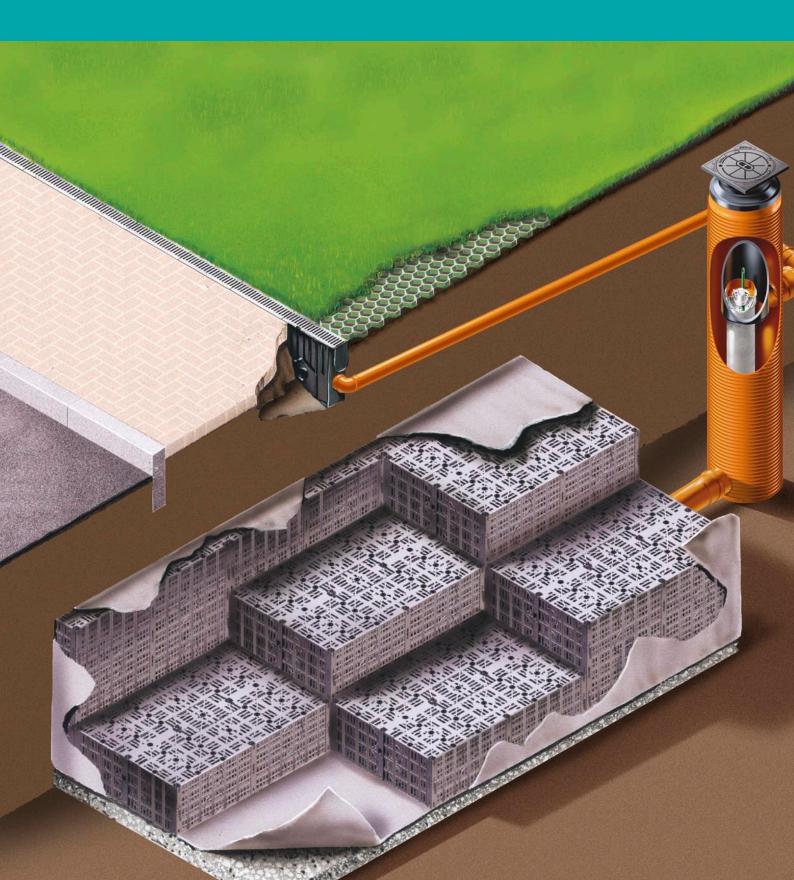
Depending on where it comes from, water can have more or less dirt particles and may carry fine dirt particles. Engineers can evaluate the properties of the precipitation water in accordance with worksheet DWA-M 153 and use these data for the calculations. Depending on the content of pollutants, worksheet DWA-A 138 distinguishes between harmless, tolerable and not tolerable water qualities. All these factors have to be taken into account when selecting and designing an infiltration system.

GROUNDWATER

One of the most important ecological reasons for the installation of infiltration systems is the protection of groundwater. With the help of these systems, precipitation water is returned to the natural cycle. An adequate distance (at least 1 m) has to be guaranteed permanently between the floor of the infiltration structure and the highest expected groundwater level. In addition, there must be no polluted layers of soil in the catchment area of the system. Otherwise, pollutants dissolved in water may get into the groundwater.

DRAINFIX®BLOC

STABLE, SAFE AND EXTREMELY STRONG. INFILTRATION MODULES FOR INDUSTRIAL AND COMMERCIAL AREAS.





AT A GLANCE

- Infiltration block with very high storage capacity
- Light-weight and variable infiltration modules
- Requires only a minimum of excavation

Gt

Car

- ✓ Ideal where space is restricted
- Load-bearing capacity up to SLW 60, suitable for installation under areas with vehicular traffic

DRAINFIX®BLOC

STABLE, SAFE AND EXTREMELY STRONG. INFILTRATION MODULES FOR INDUSTRIAL AND COMMERCIAL AREAS.

THE PRODUCT

DRAINFIX BLOC is a polypropylene (PP) infiltration block with a very high storage capacity. The void ratio is more than 90%. The system can be installed in areas with different load requirements - even in HGV-trafficked areas up to SLW 60. The modules have been tested structurally for different load conditions.

Stormwater enters the infiltration structure through infiltration in accordance with work sheet DWA-A 138. Filtered water will reach the system via an inlet and distribution SHAFT. This SHAFT has an additional small particle filter which is capable of retaining non-soluble residual dirt. The individual elements have compact dimensions and are connected to each other without accessories. In that way the infiltration structure is constructed up to the required calculated size. The SHAFT has an overflow facility connected to the drainage system. In addition, the SHAFT can be used to control the infiltration performance and/or the level of water in the infiltration trench and can be used to function as a control SHAFT.

APPLICATION AREAS

Decentralised infiltration solutions in commercial areas, industrial precincts and on private property, in particular underneath traffic areas, e.g. parking areas to class VI of RStO 01 and other areas with vehicular access, depending on local building regulations.

FURTHER ADVANTAGES

□ Unique connection technology without accessories

In order to achieve the required storage volume simply add several DRAINFIX BLOC elements together using the push-fit function. The individual modules will form a stable structure horizontally and vertically, without additional accessories. This connection method saves time and money. It has been developed by HAURATON and is unique in the market.

□ High load-bearing capacity

Any infiltration structures in commercial areas are exposed to heavy goods vehicle (HGV) traffic. For these applications and depending on the installation method we offer a DRAINFIX BLOC model for up to SLW 60. These products are therefore particularly suitable for installation underneath trafficked areas with HGV usage, e.g. fire engine access lanes.

SUITABLE FOR HGV, SUITABLE FOR **UP TO SLW 60 PASSENGER CARS** 1 2 2 З З 4 4 5 5 6 7 8

More layers are possible depending on the object.



□ Very strong hence small space requirement

Depending on the type of soil, the modules can be installed in several layers. Under SLW 60 conditions it is possible to form 5 or more layers (depending on the type of soil and details of the cover); under less heavy loads it is possible to increase the number of layers as calculated for the respective loads, for example 8 layers for passenger car traffic. This minimises the size of the building site and the space requirement.

\Box Change of use

Where there is a subsequent change of use, DRAINFIX BLOC offers another assurance. Any areas that were originally designed for pedestrian traffic only can also be reclassified for vehicular traffic given certain installation details.

$\hfill\square$ Geotextile dressing to maintain function

The function of an infiltration structure will be restricted where dirt and soil particles silt up inside the structure. The build up of silt will reduce the amount of infiltration. To avoid this effect, the whole structure is wrapped up in a geotextile membrane made from PP-fleece GRK 3 (weight: 200g/m²). Stormwater will always be filtered when using infiltration structures and SHAFTs, which helps to prevent silting up.





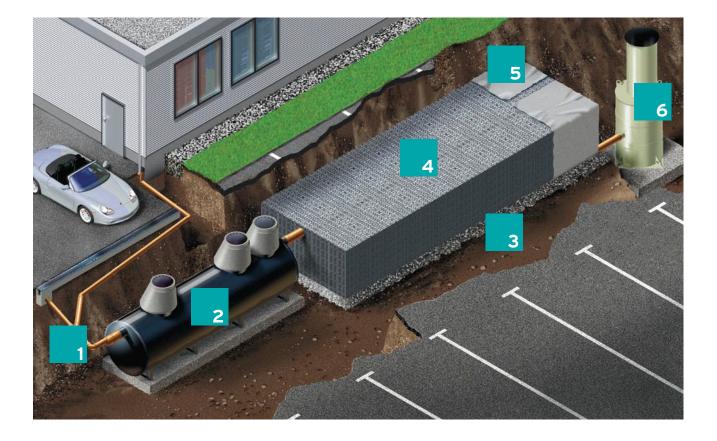




Taylor made solution according planners request

DRAINFIX®BLOC

STABLE, SAFE AND EXTREMELY STRONG. INFILTRATION MODULES FOR INDUSTRIAL AND COMMERCIAL AREAS.





Water inlet pipe

Stormwater collection pipe channels water into the SHAFT



Rainwater treatment plant Individuel dimensioned plant to filter dirt particles



Road level Granular subbase on ground with infiltration capability



Infiltration element

DRAINFIX BLOC elements with high storage volume and even infiltration performance



Geotextile

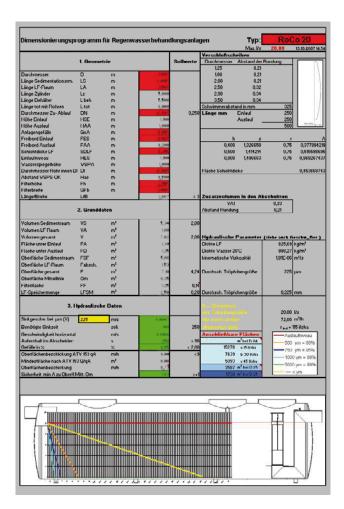
Can be used to protect the infiltration trench from silting up (optional)



Controllshaft

To control, clean and maintain the infiltration trench

Precipitation water collected from e.g. roads or industrial areas can vary widely in the dirt content it carries. If this dirty water gets into the infiltration structure, the fine particles will settle to the floor and will have an adverse effect on the infiltration performance. In extreme cases the whole system may cease to function properly or the groundwater may get polluted.



DRAINFIX sedimentation and filter systems counteract this effect. They work by allowing larger dirt particles to settle in an individually dimensioned sedimentation zone, based on gravity. In a second step, an inbuilt filter ensures that even the finest particles suspended in the water are filtered out. The size and design of these systems is calculated individually for each building project, taking into account all relevant parameters (e.g. precipitation water quantity and content of dirt particles). The experts at HAURATON will take care of this task for you. Cleaning is carried out at a central place by flushing or suction.

DRAINFIX sedimentation systems for commercial areas have to withstand heavy traffic loads. For this reason we manufacture them from steel.

PERMEABILITY VALUES ACCORDING TO DWA-M 153

DRAINFIX	areas the	at can be o	connected in m ²								
sedimenta- tion system	D21	D25		D24							
type			15 l/s ha	30 l/s ha	45 l/s ha						
20	1739	3587	15278	7639	5093						
50	4348	9239	39352	19676	13117						
100	8696	17935	76389	38194	25463						

DRAINFIX®BLOC SHAFTS

LARGE VOLUMES FOR PROVABLE SAFETY. THE INFILTRATION STORAGE FOR MAXIMUM LOADS IN COMMERCIAL AREAS.

COMPLETE SYSTEM WITH INLET AND OUTLET CHAMBERS

Water will flow into the infiltration structure via an inlet, filter and distribution chamber which can be used for several inlet pipes. The chamber features a serviceable filter pipe that cleans the water from any silt components before it enters the system. The multi-function outlet chamber fulfils several duties:

□ Outlet, emergency overflow

Where the quantities of water are very large, the infiltration structure may get completely filled up. To provide for that case, it is possible to connect an overflow which will allow excess water to run into another infiltration structure or into the drainage system.

\Box Control mechanism

In the case of poor infiltration properties of the soil, as well as to provide additional security, it is possible to fit a commercially available dynamic or static control mechanism for retention and infiltration.

□ Venting

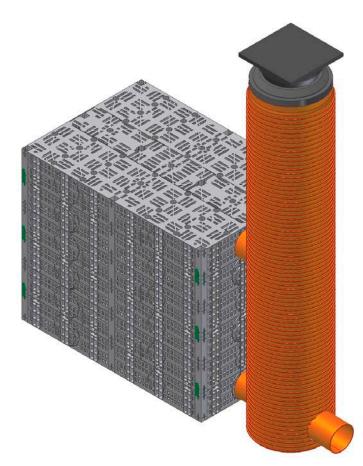
It is also necessary to allow air to escape from the system so that it can cope with a very sudden inflow of water. The chamber can also be used for the purpose of discharging air.

□ Control

Another important function of the chamber is the control of the infiltration performance and level within the infiltration structure. No other chamber is available in the market with such a broad spectrum of functionalities. The chamber is made of plastic and available in classes A 15, B 125 and D 400 to suit different requirements.

MULTI-FUNCTION SHAFT

- 🗆 inlet
- □ emergency overflow
- 🗆 venting
- 🗆 outlet
- control mechanism
- □ control/monitoring



□ Pre-formed connections

DRAINFIX BLOC modules as well as all chambers have pipe connections for sizes DN 100/150. This allows for easy and quick connections to standard PVC pipes.



Further shaft dimensions we can offer after the individual dimensioning.





Shaft DN 1000

DRAINFIX®BLOC

MAXIMUM STRENGTH AND LONG-TERM DURABILITY ARE AN ESSENTIAL REQUIREMENT FOR INFILTRATION STRUCTURES BUILT WITH INFILTRATION BLOCKS. DRAINFIX BLOC MODULES HAVE BEEN SUBJECTED TO RIGOROUS TESTING. THE RESULT: DRAINFIX BLOC HAS BEEN PROVEN TO BE ONE OF THE STRONGEST SYSTEMS ON THE MARKET.

PROVEN TO BE ONE OF THE STRONGEST SYSTEMS ON THE MARKET

Proven quality and strength

- quality management system in accordance with DIN ISO 9001:2000
- suitable for load class SLW 60 according to calculations by civil engineer (VBI)
- calculations and product testing in accordance with strict BBA requirements (British Board of Agreement)
- proven long-term functionality (50 years) as tested under British standards
- = maximum reliability for the system designer
- = DRAINFIX BLOC

STRENGTH TESTED TO BBA REQUIREMENTS

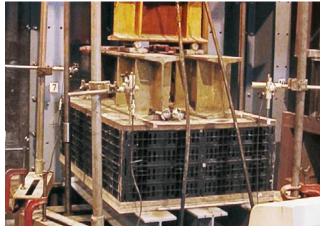
Test methods

The results are based on a number of structural tests:

- vertical and horizontal point loads applied via a 300 mm diameter steel plate
- vertical and horizontal distributed load applied via a steel plate covering the whole test specimen
- serial testing to assess creep characteristics. Test loads representing 80%, 60%, 40% and 20% of the maximum permissible point load were applied for a defined period of time (200 days).



Test with point load from above



Test with vertical distributed load



Test with horizontal load

DRAINFIX®T WIN

RESULTS

Since March 2003, a standardised test method for plastic objects has been introduced in compliance with BBA regulations (British Board of Agreement).

tests for maximum horizontal and vertical loading: results:

distributed load

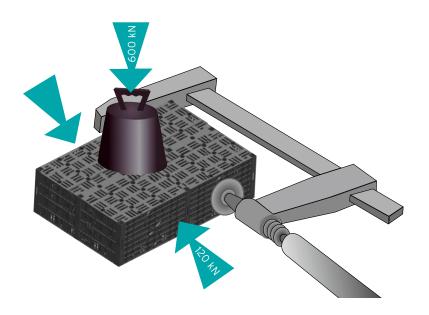
vertical compressive strength = 600 kN/m^2 horizontal compressive strength = 120 kN/m^2 point load

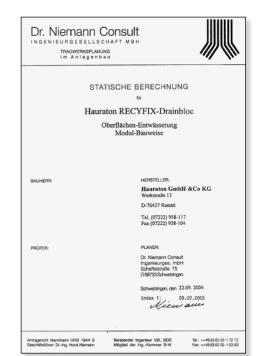
vertical compressive strength = 800 kN/m^2 horizontal compressive strength = 120 kN/m^2

- achievable installation depth up to 7.1 m depending on type of soil and load - without permanent supporting structures such as geolattice, sheet piling or concrete walls
- Iong-term test (up to 200 days) for assessing the creep characteristics - allows conclusions for a life span of up to 50 years
- the DRAINFIX BLOC by HAURATON also has been calculated under the German standard DIN1072 up to load class SLW60

DRAINFIX BLOC: strong system for maximum load-bearing capacity = maximum reliability for the system designer

DRAINFIX BLOC by HAURATON has been tested in accordance with the exacting English test methods.

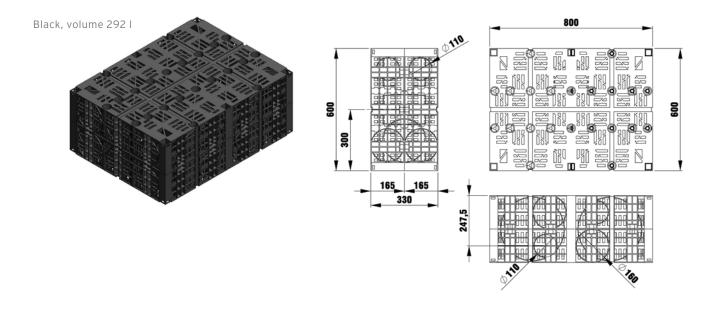






DRAINFIX®BLOC

DRAINFIX[®]BLOC - Seepage element, SLW 60 depending on installation



	Length mm	Width mm	Height mm	Weight kg	Article No.
Size 1, Black, volume 146 l	600	800	330	-	96025
Size 2, Black, volume 292 l	1200	800	330	23,0	96000
Supplementary for access with camera (for Size 2)	1200	800	330	2,4	96150

DRAINFIX[®] - Rainwater treatment plants (ATV)

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Type 20	Length mm	Width mm	Height mm	Weight kg	external diameter mm	Flow capacity l/s	No.
Туре 20	6000	1500	1650	-	1500	20	96400
Туре 50	9000	2500	2650	-	2500	50	96410
Туре 100	17000	2500	2650	-	2500	100	96420

All DRAINFIX - Rainwater treatment plants (ATV) are also applicable for DRAINFIX TWIN.

DRAINFIX® - Multifunction shafts



Inlet and distribution shaft SUPER, 3-piece with closed ductile iron cover, black, class E 600

Filter shaft* 400/1500 with fine filter cartridge, with ductile iron grating, closed, class B 125



Discharge shaft DN 1000 with inlet and outlet DN 150

	Length mm	Width mm	Height mm	Weight kg	Article No.
Inlet and distribution shaft SUPER, 3-piece with closed ductile iron cover, black, class E 600	510	390	1250	289,0	96250
Multifunction discharge shaft SUPER, 3-piece, with closed ductile iron cover, black, class E 600	510	390	1250	284,0	96350
Filter shaft* 400/1500 with fine filter cartridge, with ductile iron grating, closed, class B 125	400	-	1673	-	96710
Filter shaft* 400/1500 with fine filter cartridge, with ductile iron grating, closed, class D 400	400	-	1673	-	96720
Filter shaft* 400/2000 with fine filter cartridge, with ductile iron grating, closed, class B 125	400	-	2173	-	96760
Filter shaft* 400/2000 with fine filter cartridge, with ductile iron grating, closed, class D 400	400	-	2173	-	96770
Multifunction shaft* 400/1500 with ductile iron grating, closed, class B 125	400	-	1673	-	96715
Multifunction shaft* 400/1500 with ductile iron grating, closed, class D 400	400	-	1673	-	96725
Multifunction shaft* 400/2000 with ductile iron grating, closed, class B 125	400	-	2173	-	96765
Multifunction shaft* 400/2000 with ductile iron grating, closed, class D 400	400	-	2173	-	96775
Discharge shaft DN 1000 with inlet and outlet DN 150	1000	-	2345	-	96890

* Height adjustable via telescope adaptation

DRAINFIX[®]BLOC - Accessories



Connection adaptor for DRAINFIX BLOC Size 1, red



Connection adaptor for DRAINFIX BLOC Size 2, green

	Length mm	Width mm	Height mm	Weight kg	Article No.
Connection adaptor for DRAINFIX BLOC Size 1, red	74	46	48	-	96115
Connection adaptor for DRAINFIX BLOC Size 2, green	35	35	100	-	96110
Geotextile from PP-fleece GRK3 rollware 2 x 200 m, 200 g/m²	-	-	-	80,0	96120
Geotextile form PP-fleece GRK3, sold by 2 m ² per metre cutting-off of the the roll	-	-	-	0,2	96130

TENDER PROPOSALS

DRAINFIX BLOC INFILTRATION ELEMENTS

1. ____ no.

DRAINFIX BLOC black, storage volume 292 I, made from PP; infiltration block, suitable for infiltration, retention and storage trenches and swales, with over 90% storage capacity, with integrated connector adapters for safe positioning in accordance with DGBM, height 330 mm, length 1200 mm, width 800 mm, art. no. 96000. To be supplied and laid in accordance with the manufacturer's installation instructions. With suitable installation details load class up to SLW 60 - suitable for HGV. Quality in acc. with DIN EN ISO 9001:2000

Manufactured by: Hauraton GmbH & Co. KG

P. O. Box 16 61 D-76437 Rastatt, Germany Tel.: +49-7222-958-0 Fax: +49-7222-958-102 E-Mail: export@hauraton.com

ACCESSORIES

2. ____NO. DRAINFIX RAINWATER TREATMENT PLANT TYPE 20 ATVR

DN 1500 mm, length 6000 mm for 20 l/s, inlet in front of DRAINFIX ditch including filter elementand sedimentation space; pipe connection possibility DN 300, art. no. 96400

3. ___ no. DRAINFIX RAINWATER TREATMENT PLANT TYPE 20 ATVR

DN 2500 mm, length 9000 mm for 50 l/s, inlet in front of DRAINFIX ditch including filter elementand sedimentation space; pipe connection possibility DN 300, art. no. 96410

4. ____ no. DRAINFIX RAINWATER TREATMENT PLANT TYPE 100 ATV

DN 2500 mm, length 17000 mm for 100 l/s, inlet in front of DRAINFIX ditch including filter elementand sedimentation space; pipe connection possibility DN 300, art. no. 96420

- ____ no. INLET AND DISTRIBUTION SHAFT SUPER in 3 parts, made from fibre-reinforced concrete with galvanised steel frame, load class E 600 with SIDE-LOCK boltless quick-locking system, 4-fold locking and closed cast iron cover, consisting of top, middle part with filter element and base, h/w/l 1250 x 390 x 510 mm, art. no. 96250
- 6. ____ no. MULTI-FUNCTION OUTLET SHAFT SUPER in 3 parts, made from fibre-reinforced concrete with galvanised steel frame, load class E 600 with SIDE-LOCK boltless quick-locking system, 4-fold locking and closed cast iron cover, consisting of top, middle part with filter element and base, h/w/l 1250 x 390 x 510 mm, art. no. 96350

DRAINFIX®BLOC

7. ___ no. FILTER MANHOLE 400/1500

made from PP, with closed cast iron cover, load class _____, nominal width 400, with telescopic adapter and integrated sludge trap and fine filter cartridge with inspection facility, including visual maintenance indicator, inlet and outlet spigot DN 150, height of manhole 1,673 mm, can be extended by up to 680 mm via telescopic function, art. no. _____

8. ____ no. FILTER MANHOLE 400/2000

made from PP, with closed cast iron cover, load class _____, nominal width 400, with telescopic adapter and integrated sludge trap and fine filter cartridge with inspection facility, including visual maintenance indicator, inlet and outlet spigot DN 150, height of manhole 2,173 mm, can be extended by up to 180 mm via telescopic function; art. no.

9. ____ no. MULTI-FUNCTION CHAMBER 400/1500 made from PP, with closed cast iron cover, load class _____, nominal width 400, with telescopic adapter, inlet and outlet spigot DN 150, height of manhole 1,673 mm, can be extended up to

680 mm via continuous telescopic extension, functions: outlet, emergency overflow, venting, control, art. no. _____

____ no. MULTI-FUNCTION CHAMBER 400/2000 made from PP, with closed cast iron cover, load class _____, nominal width 400, with telescopic adapter, inlet and outlet spigot DN 150, height of manhole 2,173 mm, can be extended up to 680 mm via continuous telescopic extension, functions: outlet, emergency overflow, venting, control, art. no. _____

 no. DRAINFIX OUTLET SHAFT DN 1000 with pipe connection possibility inlet and outlet DN 150, inlet height 794 mm, Shaft height 2345 mm, art. no. 96890

12. ____ no.. CONNECTION ADAPTER

for DRAINFIX BLOC, made from PP, for securing different layers of DRAINFIX BLOC against thrust, height 100 mm, art. no. 96110. When blocks laid in rows use 6 pieces, when laid in several layers use 4 pieces for each 2.40 m x 2.40 m area.

13. ____ no. GEOTEXTILE, BY THE ROLL

white, for wrapping up DRAINFIX BLOC, made from PP fleece, mechanically reinforced GRK 3, weight 200 g/m², length of roll 100 m, width of roll 4 m, art. no. 96120

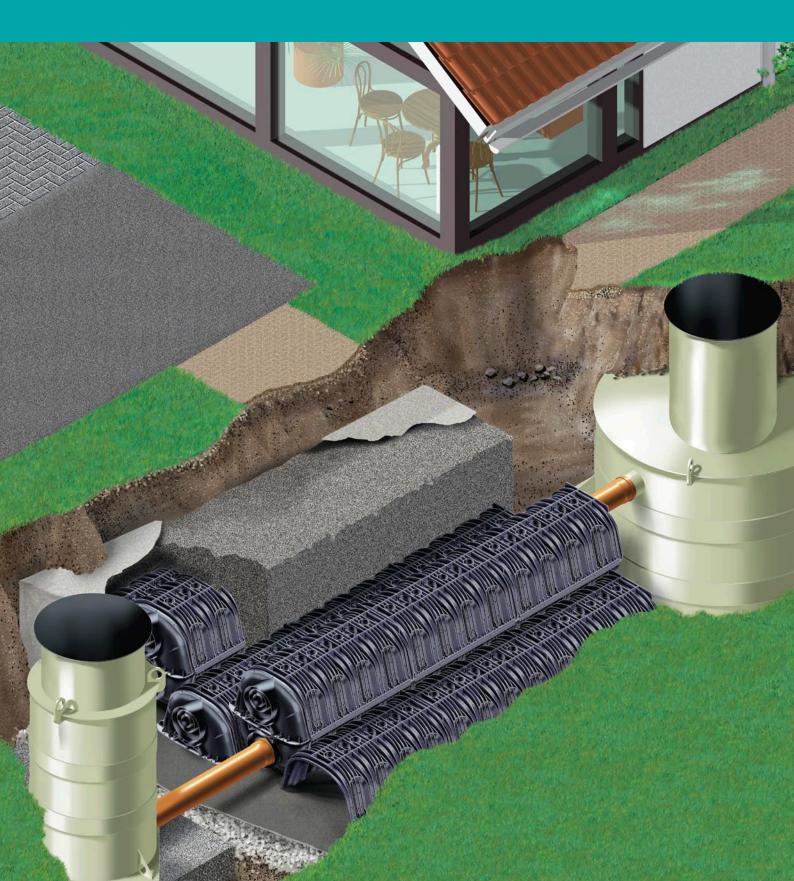
14. ____ no. GEOTEXTILE, BY THE METRE

white, for wrapping up DRAINFIX BLOC, made from PP- fleece, mechanically reinforced GRK 3, weight 200 g/m², width 4 m, art. no. 96130



DRAINFIX®TWIN

HIGH VOLUME IN THE SMALLEST SPACE. THE DOUBLE TUNNEL SYSTEM FOR USE UNDER LIGHT TRAFFIC ROADS.



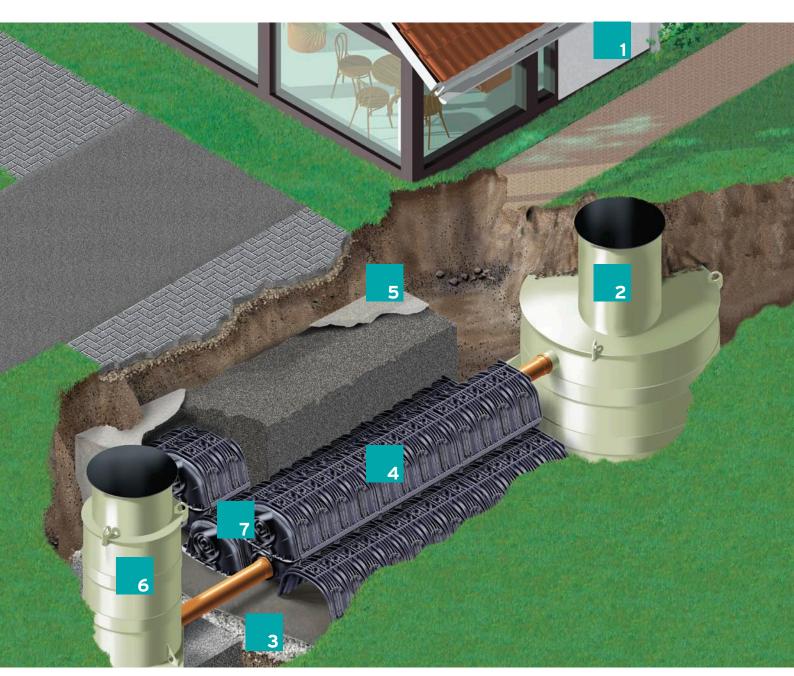
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DRAINFIX®TWIN

HIGH VOLUME IN THE SMALLEST SPACE.

THE DOUBLE TUNNEL SYSTEM FOR USE UNDER LIGHT TRAFFIC ROADS .



Water inlet pipe

Stormwater collection pipe channels water into the SHAFT



Water treatment plant individual dimensioned plant to treat and filter dirt particles

3

Road level Granular subbase on ground with infiltration capability



Infiltration element

DRAINFIX TWIN elements with high storage volume and even infiltration performance

5 Geotextile

Can be used to protect the infiltration trench from silting up (optional)



Flushing and control chamber

Flushing and control chamber for the control, cleaning and maintenance of the infiltration system

7

Combi end cap

End caps for closing the element ends or for connecting to SHAFT or drainage system Decentralised infiltration facility in private and public areas with low traffic volumes. The elements used to fill the infiltration structure should be lightweight and easy to handle and offer maximum storage capacity for small space requirement. The material must be durable and strong. The surface area should remain usable.

SOLUTION

DRAINFIX TWIN are combinable infiltration elements with particularly large storage capacity. This large available volume makes it possible to collect large quantities of water. Subsequently, the water will be slowly released to the surrounding soil. Compared to conventional gravel-filled infiltration structures, site requirements and excavation are reduced by 2/3. The surface areas remain fully usable for other purposes.

APPLICATION AREAS

Collecting and storing stormwater for infiltration from sealed ground surfaces in private and public areas with low traffic volumes.

Depending on the installation details, the load class will range from pedestrian to passenger car traffic.

TRANSPORT ADVANTAGE

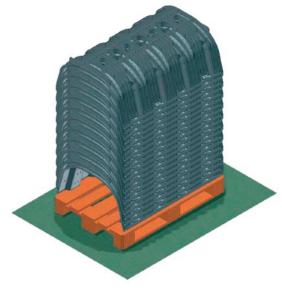
One Euro pallet will carry 32 stacked elements, which corresponds to approx. 8.1 m storage volume. It means favourable transport costs and small space requirements during storage.

DRAINFIX WATER TREATMENT PLANT

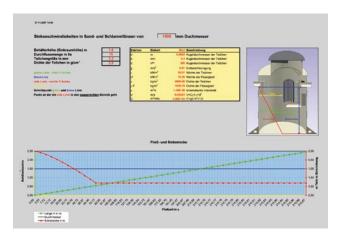
DRAINFIX Water treatment plants prevent dirt particles entering the infiltration system and protect it. With the aid of gravitation bigger dirt particles are sedimented in the individuel dimensioned sedimentation zone. An extra built filter makes sure in the second step that also the smallest dirt particles are filtered. Size and design of these plants were dimensioned for each building project under consideration of all influencing factors (e.g. rainfall quantity and kind of dirt). HAURATON experts can support you for the dimensioning.



Huge back pressure volume



Stack of elements on pallet



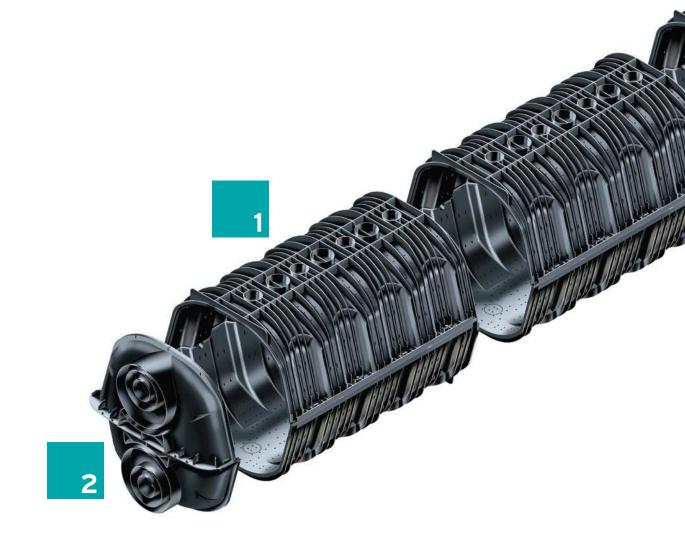
DRAINFIX®TWIN

HIGH VOLUME IN THE SMALLEST SPACE.

THE DOUBLE TUNNEL SYSTEM FOR USE UNDER LIGHT TRAFFIC ROADS.

INFILTRATION SYSTEM USING VARIABLE PLASTIC ELEMENTS

DRAINFIX TWIN is a system solution for decentralised infiltration of stormwater in private and public spaces. The very large storage volume offers much reserve space for very sudden stormwater precipitation. The innovative design makes it possible to join the elements together in order to firmly connect individual elements to each other. The system is rounded off with end caps, SHAFTs and closed DRAINFIX TWIN elements for sedimentation and inspection.



1

DRAINFIX TWIN 1/1 made from plastic, with drainage holes, for retention and infiltration discharge of stormwater

3

- The combination with elements without drainage holes allows numerous installation constellations
- Plastic end cap with variable connection option to pipes DN 200 and DN 300

3

Multi-function plastic SHAFT DN 400 for inspection or filtering

UNIQUE IN THE MARKET

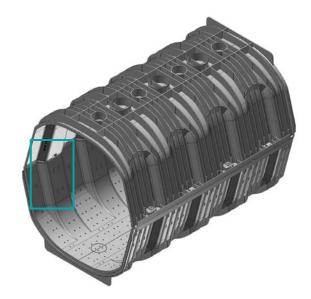
- Elements with and without drainage holes can be combined
- Maximum variety of applications with only 2 elements
- Optimal capacity effect per area

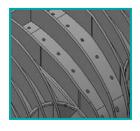
AQUA

DRAINFIX®TWIN

COMBINATION OPTIONS OF DRAINFIX TWIN ELEMENTS

combination options to configure the ideal solution for different situations. Using the two basic elements DRAINFIX TWIN 1 with drainage holes and DRAINFIX TWIN 0 without drainage holes it is possible to configure six different combinations. These six combinations can be used to advantage to match the requirements of different situations on site. The aim is find an optimum combination of elements to suit the ground conditions and the characteristics of the elements. With just a few elements DRAINFIX TWIN offers maximum adaptability to ground conditions and the situation on site.





DRAINFIX TWIN 1

Element with drainage hole. Particularly suited for use in high or medium groundwater level areas.



DRAINFIX TWIN O Element without drainage hole. Particularly suitable for installation underneath sealed surfaces or installations without separate gravel packing.



DRAINFIX TWIN 1/1 Upper and lower element have drainage

holes. This combination is indicated for maximum infiltration discharge.



DRAINFIX TWIN 1/0

Only the upper element has drainage holes. This combination is particularly suitable for sedimentation flushability of the infiltration structure.



DRAINFIX TWIN 1

DRAINFIX TWIN 0/1 Only the lower element has drainage holes. This combination is particularly suitable where the dug out spoil is re-used.



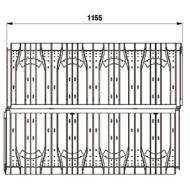
DRAINFIX TWIN 0/0

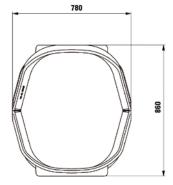
Neither the upper nor the lower element have drainage holes. The combination with closed elements is suitable as a sedimentation zone.



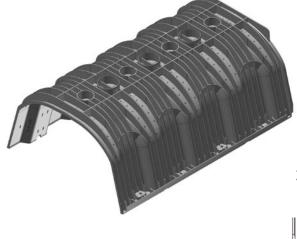
DRAINFIX®TWIN - Seepage element made of PP



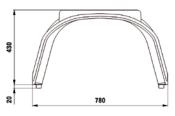




TWIN 1, black (1 part)



			k	0 0 0			· · · · · · · · · · · · · · · · · · ·		:k			
1140												
	1155											

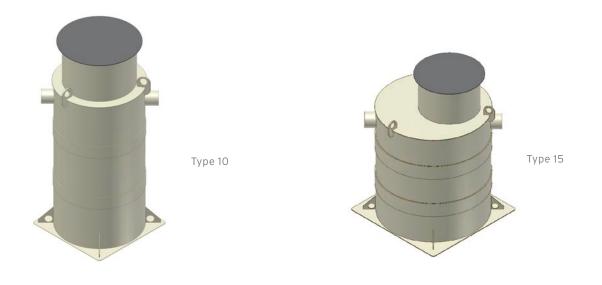


	Length mm	Width mm	Height mm	Weight kg	Article No.
TWIN 1/1, black (2 parts)*	1155	780	860	23,0	96550
TWIN 0/0, black (2 parts), closed*	1155	780	860	23,0	96610
TWIN 0/1, black (2 parts), upper part closed*	1155	780	860	23,0	96650
TWIN 1/0, inspection, black (2 parts), lower part closed*	1155	780	860	23,0	96660
TWIN 1, black (1 part)	1155	780	430	11,5	96500
TWIN 0, black (1 part), closed	1155	780	430	11,5	96600

 \ast including 4 times DRAINFIX TWIN fixing and 2 DRAINFIX TWIN connection clip.

DRAINFIX®TWIN

DRAINFIX® - Rainwater treatment plants



	Length mm	Width mm	Height mm	Weight kg	external diameter mm	Flow capacity l/s	Article No.
Туре 10	1000	1000	2345	-	950	6	96450
Туре 12	1200	1200	2480	-	1190	10	96460
Туре 15	1500	1500	2704	-	1430	15	96470
Туре 20	2000	2000	2804	-	1910	20	96480
Туре 25	2500	2500	2654	-	2380	25	96490

All DRAINFIX - Rainwater treatment plants (ATV) are also applicable for DRAINFIX BLOC.

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DRAINFIX® - Multifunction shafts

Filter shaft* 400/1500 with fine filter cartridge, with ductile iron grating, closed, class B 125



Discharge shaft DN 1000 with inlet and outlet DN 150

Length mm	Width mm	Height mm	Weight kg	Article No.
400	-	1673	-	96710
400	-	1673	-	96720
400	-	2173	-	96760
400	-	2173	-	96770
400	-	1673	-	96715
400	-	1673	-	96725
400	-	2173	-	96765
400	-	2173	-	96775
1000	-	2345	-	96890
	400 400 400 400 400 400 400 400 400	mm mm 400 - 400 - 400 - 400 - 400 - 400 - 400 - 400 - 400 - 400 - 400 - 400 - 400 - 400 - 400 -	mm mm 400 - 1673 400 - 1673 400 - 2173 400 - 2173 400 - 2173 400 - 1673 400 - 2173 400 - 1673 400 - 1673 400 - 1673 400 - 2173 400 - 2173 400 - 2173	mm mm mm kg 400 - 1673 - 400 - 1673 - 400 - 1673 - 400 - 2173 - 400 - 2173 - 400 - 1673 - 400 - 1673 - 400 - 1673 - 400 - 1673 - 400 - 2173 - 400 - 2173 - 400 - 2173 -

* Height adjustable via telescope adaptation

DRAINFIX®TWIN - Accessories



End cap, black

	Length mm	Width mm	Height mm	Weight kg	Article No.
End cap, black	192	780	430	2,5	96530
Geotextile from PP-fleece GRK3 rollware 4 x 100 m, 200 g/m²	-	-	-	80,0	96120
Geotextile from PP-fleece GRK3, by the metre 4m² / to cat	-	-	-	0,2	96130

TENDER PROPOSALS

DRAINFIX TWIN INFILTRATION ELEMENTS

1. <u>no.</u>

DRAINFIX TWIN 1/1, black, made from PP, element for infiltration trench, suitable for retaining, storing and releasing stormwater for infiltration, including 4 x DRAINFIX TWIN locking and 2 DRAINFIX TWIN connector brackets, load class for passenger cars, volume 506 I, I/w/h 1155 x780 x860 mm, weight 23.0 kg, art. no. 96550 To be supplied and laid in accordance with the manufacturer's installation instructions. Quality in acc. with DIN EN ISO 9001:2000 Manufactured by: Hauraton GmbH & Co. KG

P. O. Box 16 61 D-76437 Rastatt, Germany Tel.: +49-7222-958-0 Fax: +49-7222-958-102 E-Mail: export@hauraton.com

2. ____no. DRAINFIX TWIN 1/0,

black, made from PP, element for infiltration trench, suitable for sedimentation and retention of stormwater, including 4 x DRAINFIX TWIN locking and 2 DRAINFIX TWIN connector brackets, load class for passenger cars, volume 506 I, I/w/h 1155 x 780 x 860 mm, weight 23.0 kg, art. no. 96650

3. ____no. DRAINFIX TWIN 0/1,

black, made from PP, element for infiltration trench, suitable for retaining, storing and releasing stormwater for infiltration, including 4 x DRAINFIX TWIN locking and 2 DRAINFIX TWIN connector brackets, load class for passenger cars, volume 506 I, I/w/h 1155 x 780 x 860 mm, weight 23.0 kg, art. no. 96660 4. ____no. DRAINFIX TWIN 0/0,

black, made from PP, element for infiltration trench, suitable for sedimentation and retention of stormwater, including 4 x DRAINFIX TWIN locking and 2 DRAINFIX TWIN connector brackets, load class for passenger cars, volume 506 I, I/w/h 1155 x 780 x 860 mm, weight 23.0 kg, art. no.

5. ____no. DRAINFIX TWIN 1

black, made from PP, element for infiltration trench, suitable for retaining, storing and releasing stormwater for infiltration, load class for passenger cars, volume 253 I, I/w/h 1155 x780 x 430 mm, weight 11.5 kg, art. no. 96500

6. ____no. DRAINFIX TWIN O,

black, made from PP, element for infiltration trench, suitable for sedimentation and retention of stormwater, also suitable for inspecting DRAINFIX TWIN infiltration systems, load class for passenger cars, volume 253 I, I/w/h 1155 x780 x 430 mm, art. no. 96600

ACCESSORIES

7. <u>no</u> . 8. <u>no</u> .	DRAINFIX RAINWATER TREATMENT PLANT TYPE 10 DN 1000 mm for 6 I/s, inlet in front of DRAINFIX ditch including filter element and sedimentation space; pipe connection possibility DN 150; inlet height 794 mm, Shaft height 2345 mm, art. no. 96450 DRAINFIX RAINWATER TREATMENT PLANT TYPE 12	14. <u> </u>	MULTI-FUNCTION CHAI made from PP, with close class, nominal width adapter, inlet and outlet s of manhole 1,673 mm, car 680 mm via continuous t functions: outlet, emerge control, art. no MULTI-FUNCTION CHAI
	DN 1200 mm for 10 I/s, inlet in front of DRAINFIX ditch including filter element and sedimentation space; pipe connection possibility DN 150; inlet height 876 mm, Shaft height 2480 mm, art. no. 96460		made from PP, with close class, nominal width adapter, inlet and outlet s of manhole 2,173 mm, car 680 mm via continuous t
9. <u>no</u> .	DRAINFIX RAINWATER TREATMENT PLANT TYPE 15 DN 1500 mm for 15 1/c inlat in front of DRAINEIX	16	functions: outlet, emerge control, art. no
	DN 1500 mm for 15 l/s, inlet in front of DRAINFIX ditch including filter element and sedimentation space; pipe connection possibility DN 200; inlet height 896 mm, Shaft height 2704 mm, art. no. 96470	16. <u> </u>	DRAINFIX OUTLET SHA with pipe connection poss DN 150, inlet height 794 r mm, art. no. 96890
10. <u>no</u> .	DRAINFIX RAINWATER TREATMENT PLANT TYPE 20 DN 2000 mm for 20 I/s, inlet in front of DRAINFIX	17. <u>no</u> .	ENDCAP FOR DRAINFIN (2 pieces required for TW with combined outlet DN
	ditch including filter element and sedimentation space; pipe connection possibility DN 200; inlet height 896 mm, Shaft height 2804 mm, art. no. 96480	18 no.	art. no. 96530 GEOTEXTILE, BY THE R white, for wrapping up DF from PP→ fleece, mechan
11. <u>no</u> .	DRAINFIX RAINWATER TREATMENT PLANT TYPE 25 DN 2500 mm for 25 I/s, inlet in front of DRAINFIX ditch including filter element and sedimentation space; pipe connection possibility DN 200; inlet height 941 mm, Shaft height 2219 mm, art. no. 96490	19. <u> </u>	weight 200 g/m ² , length o roll 4 m, art. no. 96120 GEOTEXTILE, BY THE N white, for wrapping up DF from PP- fleece, mechani weight 200 g/m ² , width 4
12. <u>n</u> o.	FILTER MANHOLE 400/1500		
	made from PP, with closed cast iron cover, load class _, nominal width 400, with telescopic extension and integrated sludge trap and fine filter cartridge with inspection facility, incl. visual maintenance display, inlet and outlet spigot DN 150, manhole height 2,173 mm, can be extended up to 180 mm via continuous telescopic extension, art. no.		

FILTER MANHOLE 400/2000 13. <u>no.</u>

> made from PP, with closed cast iron cover, load class _____, nominal width 400, with telescopic extension and integrated sludge trap and fine filter cartridge with inspection facility, incl. visual maintenance display, inlet and outlet spigot DN 150, manhole height 2,173 mm, can be extended up to 180 mm via continuous telescopic extension, art. no. _

MBER 400/1500

d cast iron cover, load 400, with telescopic pigot DN 150, height n be extended up to elescopic extension, ency overflow, venting,

MBER 400/2000

d cast iron cover, load 400, with telescopic pigot DN 150, height n be extended up to elescopic extension, ency overflow, venting,

AFT DN 1000

sibility inlet and outlet mm, Shaft height 2345

X TWIN

(IN installation) 100 / 200 / 300,

OLL

RAINFIX BLOC, made ically reinforced GRK 3, of roll 100 m, width of

IETRE

RAINFIX BLOC, made cally reinforced GRK 3, m, art. no. 96130



DRAINFIX TWIN INSTALLATION OPTIONS

DRAINFIX TWIN elements not only provide a number of combination options but can also be varied in their installation configuration. This feature of the system makes it possible to make the best use out of the available construction space. In that way the infiltration structure can be designed to suit the respective requirements.



DRAINFIX TWIN 1 - (single layer) low height of excavation, high load-bearing capacity



DRAINFIX TWIN 1/1 - (TWIN installation) large infiltration volume, medium load-bearing capacity of the infiltration structure



DRAINFIX TWIN 1/1 in combination with DRAINFIX TWIN 1 - (wave pattern) maximum volume for available area

Installation example DRAINFIX TWIN 0/1 Load = non-trafficked Backfill = Dug out soil Natural ground 120 cm up to 210 cm Twin 0 (without drainage perforation) min. = 30 cm, max = 120 cm Geotextile (Prevents fine particles getting 20 cr washed into gravel) Gravel size 8/16 up to approx. 16/32 (washed) Twin 1 (with drainage perforation) approx. 5 cm Sand (washed) 120 cm Applying to: The installation examples / advise constantly are adapted to the technical conditions. **DRAINFIX TWIN 0/1** With new editions older expenditures lose their validity. Before planning or installation please verify the current version at www.hauraton.com Our general installation Surface: 🗄 hauraton Condition:27.02.2007 instruction apply Natural Ground Description: DRF_TWIN_Einbau_1xTWIN-0-1_begehbar_GB C:\pdn ve\inventor\2007\05\0\000014835.idv

INSTALLATION EXAMPLE

DRAINFIX®TWIN

INSTALLING DRAINFIX TWIN

Prepare the pit and lay a level gravel subbase on the base of the pit, which should consist of soil with infiltration capability. Simply join the DRAINFIX TWIN elements together using the tongue and groove joint;



they will then form a homogenous system without cross bridges or braces within the infiltration cavity. Lay the elements and lock them into place using the connection brackets and the DRAINFIX TWIN locking device.



BACKFILLING THE INFILTRATION TRENCH

Once all connections have been made to SHAFTs and the system has been laid completely and closed at the ends with end caps, the infiltration trench is ready for backfilling. Fill material can be gravel or the spoil from digging out the trench. Depending on the combination of DRAINFIX TWIN 1 and 2 elements it may not be necessary to insert a geotextile. Once the trench has been backfilled, the surface can be used for other purposes.





CIVILS	LANDSCAPING	AQUA	SPORT	



AQUAFIX[®]SEPARATORS





THE WATER TREATMENT RANGE.

MODERN SEPARATION TECHNOLOGY FOR SUSTAINABLE PRESERVATION OF VITAL RESOURCES.

Living rivers and lakes, intact groundwater resources, a secure and reliable water supply and efficient wastewater disposal are fundamental requirements for environmentally sound economic development. To avoid harming nature, contaminated water must be treated before it is allowed to flow directly or indirectly back into the natural water cycle.

The mechanical separation process is designed to separate mixtures of substances. The aim is to remove one or more components of the mixture.

The operating principle of the oil and light liquid separator is based on the difference in density between the water and the components being separated from it. The lighter liquid rises to the top, collects on the surface of the water and can then be removed and disposed off. Coalescence separators are an enhancement of standard petroleum separators. These systems work on the coalescence principle, i.e. encouraging the merging of small oil particles into larger ones. Even the smallest drops of oil will then float to the surface as a result of gravity, where they can be separated off.

AQUAFIX separators form part of a controlled disposal concept and will deliver many years of reliable performance. The range consists of high quality systems made of Polyethylene, Polypropylene, steel or concrete. Each system is individually measured and customised to suit the construction project, thus guaranteeing many years of efficient water treatment. AQUAFIX separators are always state of the art and comply with all relevant standards and regulations.







AQUAFIX®SEPARATORS SERIES "G" MADE OF STEEL

AQUAFIX®SEPARATORS SERIES "k" MADE OF STEEL



AQUAFIX®SEPARATORS SERIES MADE OF CONCRETE (H/P/C)



AQUAFIX®SEPARATORS SERIES "10 PE" MADE OF POLYETHYLENE



AQUAFIX[®]SEPARATORS SERIES "PP" MADE OF POLYPROPYLENE



AQUAFIX®SEPARATORS INSTALLATION INSTRUCTIONS

THE WATER TREATMENT RANGE. MODERN SEPARATION TECHNOLOGY FOR SUSTAINABLE PRESERVATION OF VITAL RESOURCES.

REQUIREMENTS

Water is one of the most valuable resources on Earth. Germany has one of the best developed sewage systems in the world. If both are to be protected and kept in good condition for our descendants, efficient cleansing systems are required.

In fuel stations, industrial and commercial areas where surface water or effluents are polluted with hydrocarbon compounds, light liquid separators are needed that satisfy the rigorous requirements of the norms and regulations governing groundwater protection.

Effluents polluted with grease and fatty acids can cause enormous damage to drain systems and sewage plants. This is where AQUAFIX-Grease and Starch Separators make a valuable contribution to protecting the environment.

APPLICATION AREAS

Fuel stations, car washes, car repair workshops, car showrooms, oil depots, car scrap yards, transformer stations, industrial plants where lubricating oil is used, road haulage depots, police, fire brigade, army, maintenance/servicing areas, parking areas, car customisers and importers, canteen kitchens, student refectories, cafés and restaurants, hotels, cafeterias, producers of ready-made meals, producers of tinned foods, sweet factories, potato processing plants, producers of frozen foods, commercial bakeries, abattoirs, butchers, animal product processing plants, soap and stearin factories, cosmetics industry, cat and dog food producers, fairground operators and many more.

ALARM DEVICES. SECURITY FOR THE ENVIRONMENT.

WARNING SYSTEMS

□ Warning system type 1

The W1 LAL-SRW-PF-O1 warning system is an alarming device for light liquid separators (petrol, oil and coalescence separators) that is licensed for operation in potentially explosive areas (Zone O). It is used to detect the oil layer thickness in a light liquid separator. The warning system consists of a signalling unit with LED's for "Power", "System OK", "Layer thickness alarm" and "Sensor error" and an acoustic alarm. The acoustic alarm can be manually disabled. The "Sensor error" diode cannot be acknowledged until the cause of the alarm has actually been rectified.

A sensor that creates an electrical field is suspended in the separator. When the light liquid layer in a separator becomes thicker and the separating layer between the water and the light liquid is relocated downwards, the tip of the sensor is suspended in the light liquid. This affects the electrical field and an alarm is triggered. Item no.: 134100

□ Warning system type 2

The W2 LAL-SRW-PF-08 warning system is an alarming device for light liquid separators. It has the same signalling unit, but has negative switching. In warning system 2 an alarm is signalled when current is flowing. As soon as the liquid level increases and the probe tips reach the surface of the water, an alarm is triggered. In this case the cause of the backup in the separator is irrelevant. For example, if the coalescence material is soiled and preventing an adequate water flow, an alarm is signalled. An alarm is also triggered if the pipeline behind the separator is blocked or the entire system is hydraulically overloaded because of heavy rainfall. **Item no.: 134200**





□ Warning system type 3

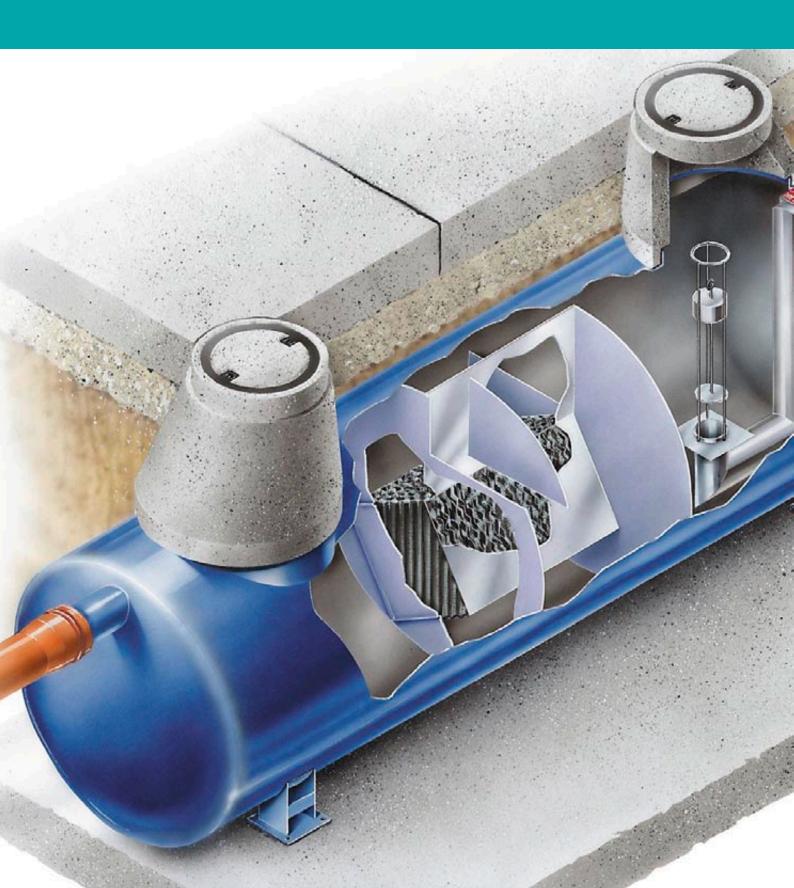
Has a signalling unit with two plug-in units and two probes. It is a combination of warning systems 1 and 2. Item no. 134300



AQUA

AQUAFIX[®]SEPARATORS

SERIES "G" MADE OF STEEL HIGHEST VOLUME FOR BIGGEST FLOW.







AT A GLANCE:

- 🗹 Compact design
- Separator tank, continuously chargeable up to class D 400
- Galvanised inside and outside or coated with several layers of epoxy resin on pretreated surface

SERIES "G" MADE OF STEEL HIGHEST VOLUME FOR BIGGEST FLOW.

FEATURES

- Compact design
- Complies with standards EN 858/DIN 1999
- Inlets and outlets made from 6 mm steel plate, same diameter as KG pipes
- Patented float, easy to remove as required by the norm
- Easy to clean lamellar coalescence material
- Maintenance-free coalescence block
- Sampling system can be integrated
- Increased cleaning performance possible
- Warning systems can be integrated
- Additional coalescence element can be retrofited

SHAFT MATERIALS

□ Extensions

The 625 and 1000 mm diameter access openings are designed to be completed with DIN 4034/1 shaft material. Shaft extensions can be supplied.





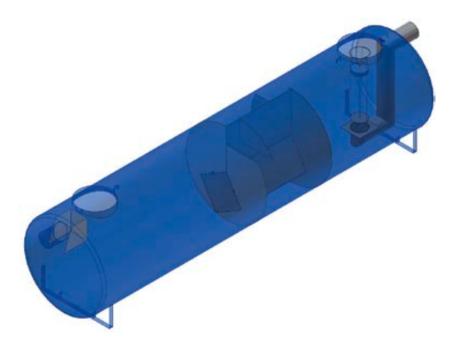






AQUAFIX[®]Separators from steel - Series G

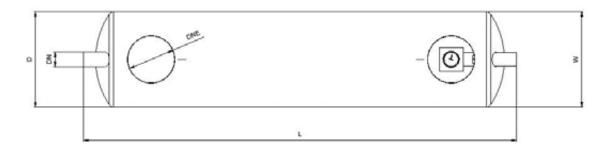
AQUAFIX® - SKG Coalescence separator with sludge trap



	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
SKG 015	3860	1250	1400	15	1238	1580
SKG 020	4960	1250	1400	20	1238	1890
SKG 025	4550	1600	1750	25	1588	2900
SKG 030	5200	1600	1750	30	1588	3620
SKG 035	5600	1600	1750	35	1588	3800
SKG 040	6020	1600	1750	40	1588	4710
SKG 045	5150	2000	2150	45	1988	4850
SKG 050	5450	2000	2150	50	1988	6100
SKG 060	6040	2000	2150	60	1988	6930
SKG 065	6350	2000	2150	65	1988	7380
SKG 070	6750	2000	2150	70	1988	8040
SKG 075	7200	2000	2150	75	1988	8320
SKG 080	7660	2000	2150	80	1988	9150
SKG 090	8240	2000	2150	90	1988	10260
SKG 100	9100	2000	2150	100	1988	11370
SKG 120	8100	2500	2650	120	2488	13520
SKG 130	8100	2500	2650	130	2488	13520
SKG 140	8440	2500	2650	140	2488	14220
SKG 150	8440	2500	2650	150	2488	14220
SKG 160	9740	2500	2650	160	2488	18100
SKG 170	9740	2500	2650	170	2488	18100
SKG 180	10540	2500	2650	180	2488	19820
SKG 200	11300	2500	2650	200	2488	21540
SKG 250	14100	2500	2650	250	2488	28270







separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
1400	200	1000	950	625	625	1400,0	504	181015
2200	200	1000	950	625	625	1600,0	792	181020
3380	200	1350	1300	1000	1000	1800,0	828	181025
3820	200	1350	1300	1000	1000	1950,0	935	181030
4340	200	1350	1300	1000	1000	2100,0	1063	181035
4200	200	1350	1300	1000	1000	2250,0	1029	181040
6090	300	1650	1600	1000	1000	2850,0	1206	181045
5930	300	1650	1600	1000	1000	2950,0	1203	181050
6470	300	1650	1600	1000	1000	3150,0	1281	181060
6870	300	1650	1600	1000	1000	3300,0	1361	181065
7280	300	1650	1600	1000	1000	3400,0	1441	181070
8250	300	1650	1600	1000	1000	3600,0	1633	181075
8680	300	1650	1600	1000	1000	3800,0	1718	181080
9160	300	1650	1600	1000	1000	4000,0	1814	181090
10400	300	1650	1600	1000	1000	4300,0	2060	181100
16000	400	2050	2000	1000	1000	5200,0	2491	181120
16000	400	2050	2000	1000	1000	5250,0	2491	181130
16840	400	2050	2000	1000	1000	5550,0	2623	181140
16840	400	2050	2000	1000	1000	5600,0	2623	181150
18530	400	2050	2000	1000	1000	6050,0	2885	181160
18530	400	2050	2000	1000	1000	6100,0	2885	181170
20210	400	2050	2000	1000	1000	6500,0	3148	181180
21730	400	2050	2000	1000	1000	6700,0	3384	181200
26950	400	2050	2000	1000	1000	7650,0	4197	181250

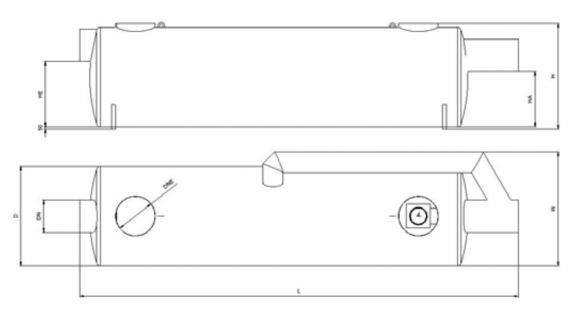
AQUAFIX[®]Separators from steel - Series G

AQUAFIX® - SKGBP Coalescence separator with sludge trap and bypass



	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
SKGBP 015	4700	1500	1400	75	1238	1500
SKGBP 020	5825	1500	1400	100	1238	2300
SKGBP 025	5235	1900	1750	125	1588	2990
SKGBP 030	6300	1900	1750	150	1588	3960
SKGBP 035	6300	1900	1750	175	1588	3960
SKGBP 040	7200	1900	1750	200	1588	4850
SKGBP 045	5400	2200	2150	225	1988	5120
SKGBP 050	6000	2200	2150	250	1988	5690
SKGBP 055	6300	2200	2150	275	1988	5920
SKGBP 060	6300	2200	2150	300	1988	5920
SKGBP 065	7200	2200	2150	325	1988	7460
SKGBP 070	8000	2200	2150	350	1988	8390
SKGBP 075	8000	2200	2150	375	1988	8390
SKGBP 080	8500	2200	2150	400	1988	8600
SKGBP 090	7300	2800	2650	450	2488	10010
SKGBP 100	7300	2800	2650	500	2488	10010
SKGBP 120	8800	2800	2650	600	2488	14010
SKGBP 130	9600	2800	2650	650	2488	14580
SKGBP 140	10300	2900	2650	700	2488	15640
SKGBP 150	11000	2900	2650	750	2488	16710
SKGBP 160	11500	2900	2650	800	2488	17780
SKGBP 170	12000	2900	2650	850	2488	19020
SKGBP 180	12700	2900	2650	900	2488	20090
SKGBP 200	13900	2900	2650	1000	2488	22220
SKGBP 250	17200	2900	2650	1250	2488	28440

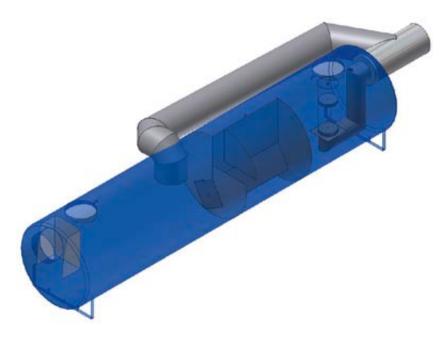
📕 hauraton



separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
1770	300	920	870	625	625	1700,0	694	182015
2080	300	920	870	625	625	1900,0	814	182020
2940	400	1150	1000	1000	1000	2350,0	887	182025
4020	400	1150	1000	1000	1000	2700,0	1215	182030
4020	400	1150	1000	1000	1000	2750,0	1215	182035
4330	400	1150	1000	1000	1000	3050,0	1308	182040
5750	400	1550	1450	1000	1000	3100,0	1207	182045
5490	500	1450	1300	1000	1000	3300,0	1292	182050
6220	500	1450	1300	1000	1000	3500,0	1465	182055
6220	500	1450	1300	1000	1000	3600,0	1465	182060
6950	500	1450	1300	1000	1000	4050,0	1637	182065
7810	500	1450	1300	1000	1000	4250,0	1838	182070
7810	500	1450	1300	1000	1000	4300,0	1838	182075
9030	500	1450	1300	1000	1000	4500,0	2125	182080
12510	600	1850	1650	1000	1000	5450,0	2249	182090
12510	600	1850	1650	1000	1000	5600,0	2249	182100
14610	600	1850	1700	1000	1000	6150,0	2628	182120
13400	800	1650	1400	1000	1000	6300,0	2901	182130
14900	800	1650	1400	1000	1000	6700,0	3050	182140
15120	800	1650	1400	1000	1000	6900,0	3273	182150
16150	800	1650	1400	1000	1000	7450,0	3497	182160
17010	800	1650	1400	1000	1000	7650,0	3682	182170
18040	800	1650	1400	1000	1000	7950,0	3905	182180
20110	800	1650	1400	1000	1000	8650,0	4352	182200
25430	800	1650	1400	1000	1000	10400,0	5505	182250

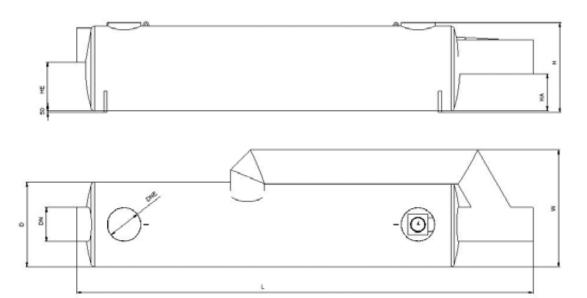
AQUAFIX[®]Separators from steel - Series G

AQUAFIX® - SKG2BP Coalescence separator with sludge trap and bypass with increased flow



	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
SKG2BP 015	5000	1700	1400	150	1238	1510
SKG2BP 020	6300	1700	1400	200	1238	2310
SKG2BP 025	5100	2100	1750	250	1588	2990
SKG2BP 030	7100	2100	1750	300	1588	4050
SKG2BP 035	7100	2100	1750	350	1588	4050
SKG2BP 040	8200	2100	1750	400	1588	4860
SKG2BP 045	6000	2500	2150	450	1988	5310
SKG2BP 050	6200	2500	2150	500	1988	5690
SKG2BP 055	7400	2600	2150	550	1988	6110
SKG2BP 060	7400	2600	2150	600	1988	6110
SKG2BP 065	8200	2600	2150	650	1988	7520
SKG2BP 070	9100	2600	2150	700	1988	8460
SKG2BP 075	9100	2600	2150	750	1988	8460
SKG2BP 080	11900	2900	2150	800	1988	8850
SKG2BP 090	9000	3300	2650	900	2488	9950
SKG2BP 100	9000	3300	2650	1000	2488	9950
SKG2BP 120	10700	3300	2650	1200	2488	13860
SKG2BP 130	11500	3300	2650	1300	2488	14580
SKG2BP 140	13000	3500	2650	1400	2488	15970
SKG2BP 150	13500	3500	2650	1500	2488	16890
SKG2BP 160	14500	3500	2650	1600	2488	18120
SKG2BP 170	15000	3500	2650	1700	2488	19350
SKG2BP 180	15800	3500	2650	1800	2488	20270
SKG2BP 200	11800	3900	3050	2000	2888	20640
SKG2BP 250	13700	3900	3050	2500	2888	25220

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separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
1740	400	820	670	625	625	2300,0	812	184015
2070	400	820	670	625	625	2700,0	967	184020
2940	400	1150	1000	1000	1000	2800,0	888	184025
4060	500	1050	850	1000	1000	3250,0	1116	184030
4060	500	1050	850	1000	1000	3300,0	1116	184035
4760	500	1050	850	1000	1000	3750,0	1456	184040
5370	500	1450	1300	1000	1000	3800,0	1493	184045
5490	500	1450	1300	1000	1000	3900,0	1551	184050
6320	600	1350	1150	1000	1000	4500,0	1784	184055
6320	600	1350	1150	1000	1000	4600,0	1784	184060
6990	600	1350	1150	1000	1000	4650,0	1962	184065
7900	600	1350	1150	1000	1000	5050,0	2081	184070
7900	600	1350	1150	1000	1000	5100,0	2081	184075
9330	800	1150	850	1000	1000	6400,0	3124	184080
12720	800	1650	1400	1000	1000	6700,0	2752	184090
12720	800	1650	1400	1000	1000	6800,0	2752	184100
15120	800	1650	1400	1000	1000	7500,0	3273	184120
16840	800	1650	1400	1000	1000	7900,0	3645	184130
14440	1000	1450	1100	1000	1000	8000,0	3795	184140
15320	1000	1450	1100	1000	1000	8200,0	4027	184150
16500	1000	1450	1100	1000	1000	8900,0	4337	184160
17090	1000	1450	1100	1000	1000	9500,0	4492	184170
18270	1000	1450	1100	1000	1000	10350,0	4802	184180
19120	1000	1850	1500	1000	1000	10800,0	3742	184200
22820	1000	1850	1450	1000	1000	11200,0	4654	184250

AQUAFIX[®]Separators from steel - Series G

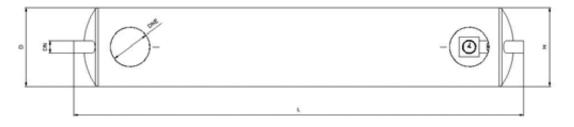
AQUAFIX® - SKGL Coalescence separator with increased cleaning performance



	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
SKGL 015	4660	1250	1400	15	1238	1580
SKGL 020	6260	1250	1400	20	1238	1890
SKGL 025	5720	1600	1750	25	1588	2900
SKGL 030	6420	1600	1750	30	1588	3620
SKGL 035	7020	1600	1750	35	1588	3800
SKGL 040	7620	1600	1750	40	1588	4710
SKGL 045	6440	2000	2150	45	1988	4850
SKGL 050	6840	2000	2150	50	1988	5820
SKGL 060	7440	2000	2150	60	1988	6930
SKGL 065	7740	2000	2150	65	1988	7490
SKGL 070	8340	2000	2150	70	1988	8040
SKGL 075	8940	2000	2150	75	1988	8320
SKGL 080	9540	2000	2150	80	1988	9150
SKGL 090	10240	2000	2150	90	1988	10260
SKGL 100	11340	2000	2150	100	1988	11370
SKGL 120	9940	2500	2650	120	2488	13790
SKGL 130	9940	2500	2650	130	2488	13790
SKGL 140	10740	2500	2650	140	2488	14220
SKGL 150	10740	2500	2650	150	2488	14220
SKGL 160	11940	2500	2650	160	2488	18100
SKGL 170	11940	2500	2650	170	2488	18100
SKGL 180	12940	2500	2650	180	2488	19820
SKGL 200	14240	2500	2650	200	2488	21540
SKGL 250	17740	2500	2650	250	2488	28440







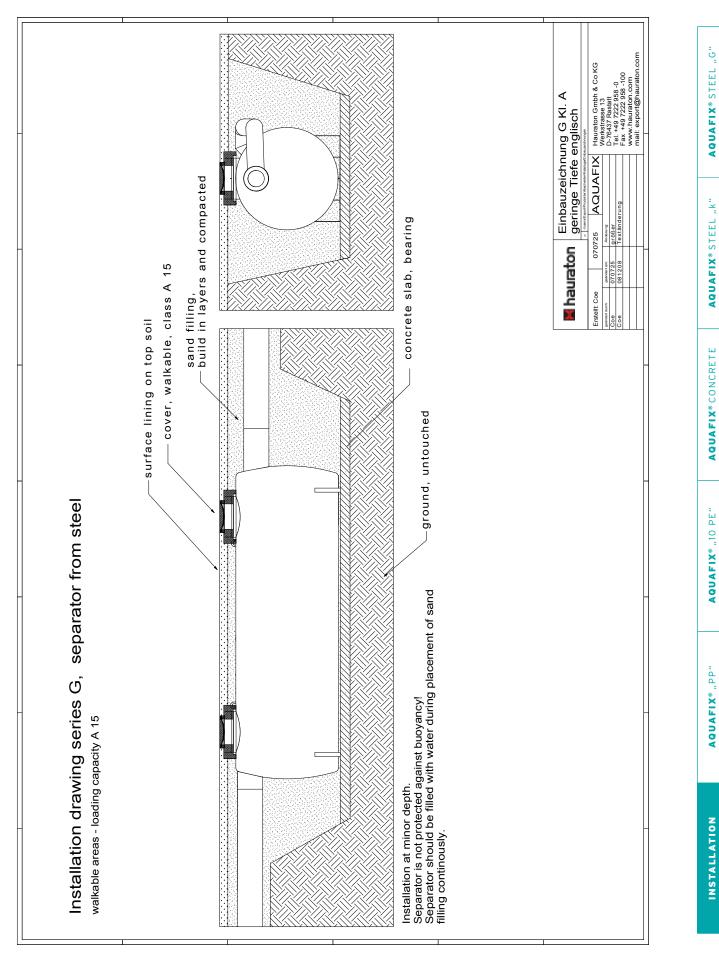
separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
2200	200	1000	950	625	625	1500,0	792	186015
3500	200	1000	950	625	625	2500,0	1260	186020
5430	200	1350	1300	1000	1000	3000,0	1329	186025
5950	200	1350	1300	1000	1000	3350,0	1458	186030
6830	200	1350	1300	1000	1000	3500,0	1672	186035
7000	200	1350	1300	1000	1000	3800,0	1715	186040
9570	300	1650	1600	1000	1000	3350,0	1894	186045
9700	300	1650	1600	1000	1000	3450,0	1921	186050
10240	300	1650	1600	1000	1000	3700,0	2028	186060
10510	300	1650	1600	1000	1000	3850,0	2081	186065
11590	300	1650	1600	1000	1000	4050,0	2294	186070
12940	300	1650	1600	1000	1000	4200,0	2561	186075
13740	300	1650	1600	1000	1000	4500,0	2721	186080
14550	300	1650	1600	1000	1000	4700,0	1761	186090
16440	300	1650	1600	1000	1000	4800,0	3255	186100
23580	400	2050	2000	1000	1000	6100,0	3672	186120
23580	400	2050	2000	1000	1000	6200,0	3672	186130
26530	400	2050	2000	1000	1000	6500,0	4131	186140
26530	400	2050	2000	1000	1000	6550,0	4131	186150
27790	400	2050	2000	1000	1000	7500,0	3672	186160
27790	400	2050	2000	1000	1000	7600,0	3672	186170
30320	400	2050	2000	1000	1000	7700,0	4722	186180
34110	400	2050	2000	1000	1000	7800,0	5312	186200
42110	400	2050	2000	1000	1000	8500,0	6558	186250

INSTALLATION INSTRUCTIONS SEPARATORS SERIES "G" MADE OF STEEL

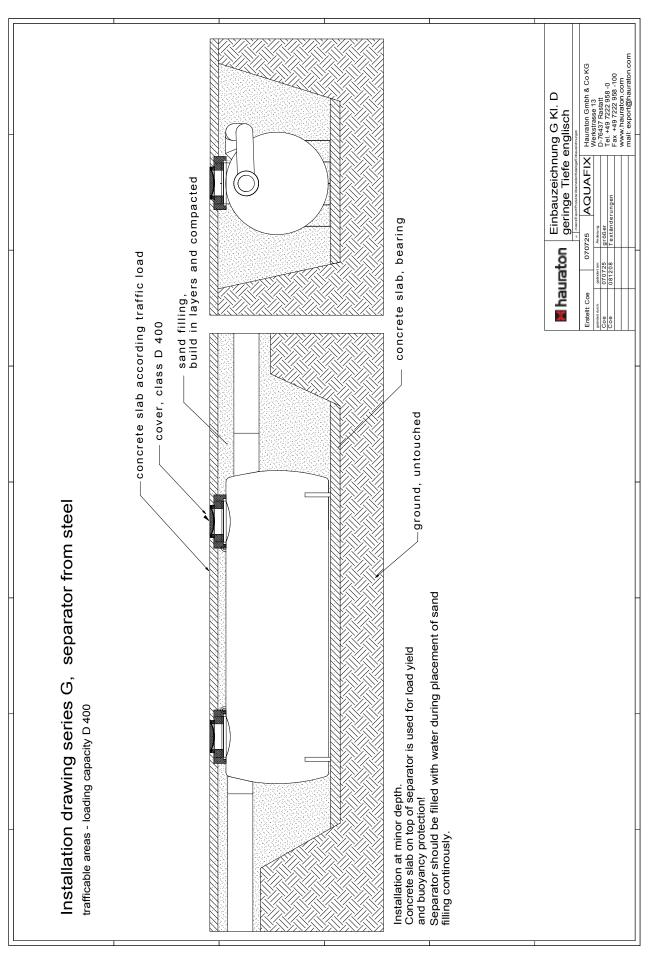
INSTALLATION ADVISES FOR AQUAFIX® SEPARATORS SERIES "G" MADE OF STEEL

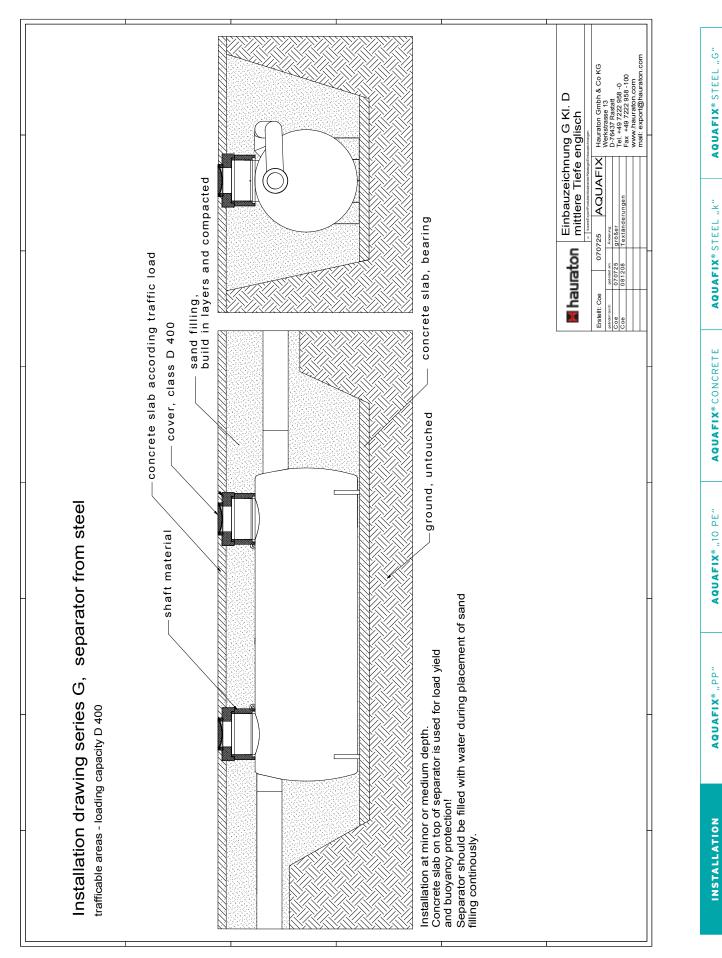
- Please check completeness of delivery and immediately note any parts that are missing or were damaged in transit on the delivery note. Complaints received at a later date will not be accepted. Otherwise our general business terms and conditions apply.
- The separator must be installed outside the washing areas where it will not overfill or back up. It must also be as close as possible to the source of the sewage, in the open but protected from the frost and easy to access by cleaning vehicles. The outlets and pipes must be able to drain off.
- The excavation base must be level. If no suitable soil is available a 10 mm thick compressed bed of sand or small pebbles can be used. A foundation plate would be even better. If the foundation soil is non-supporting, make a statically dimensioned foundation plate.
- Take thickness of base and correction layer into consideration in height calculations. Pay attention to height information in installation drawing.
- 5. Tank must be installed in a level position.
- 6. The material must be level as it flows through the separator. Inlets and outlets must be correctly aligned. The inlet and outlet must not be the wrong way around! Use the correct gradient! Recommended total gradient of system must be 2-5%!

- 7. Install system with top edge higher than last inlet point.
- 8. Pipelines must be connected without leaks.
- 9. After all tanks, tops, covers and connecting pipes have been correctly aligned, clean the system!
- 10. Before filling up the system, fill all tanks with fresh water and check for leaks. The leak test is mandatory!
- Do not modify tank or pipes again after filling with sand and compressing. Please refer to provided installation drawing.
- 12. Attach concrete plate to provide buoyancy protection if necessary.
- 13. When fitting the dome shafts, ensure that the seals are correctly seated! Please use an adequate quantity of lubricant. We recommend laying the shaft elements beneath each other in mortar.
- 14. With liquid separation systems: When filling with fresh water, hold float in raised position by hand until it is able to float independently. Report start-up to relevant authority. Always follow accident prevention regulations during installation!







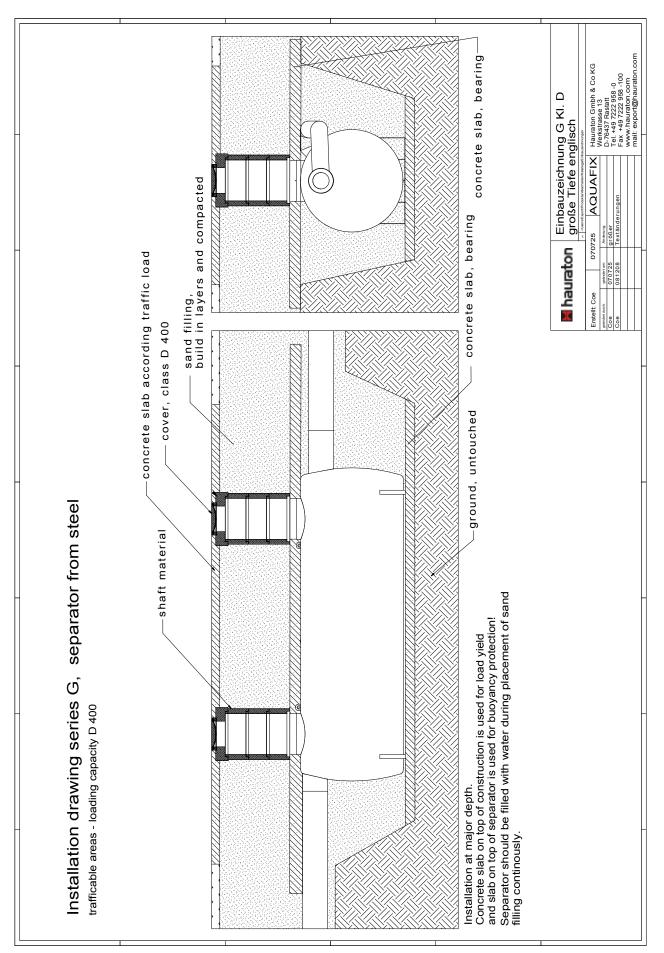


AQUAFIX® STEEL "k"

AQUAFIX[®] "PP"

INSTRUCTIONS INSTRUCTIONS





ADUAFIX® STFFI G"	
AQUAFIX® STFFI k"	
A DUA FIX® CONCRETE	
AQUAFIX® 10 PF"	
AQUAFIX® pp"	
INSTALLATION	INSTRUCTIONS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES "G" MADE OF STEEL

OPERATION AND MAINTENANCE OF AQUAFIX[®] LIGHT LIQUID SEPARATORS SERIES "G" MADE OF STEEL

□ Before start-up

- 1. Clean entire system and remove residual mortar, soil etc.
- 2. Fill sludge trap and separator with fresh water.* Attention! Always hold float of seal in hand when filling until it can float by itself. Please ensure that water level is same in all chambers of tank, and fill in sequence!
- 3. Re-check joints of system for leaks.
- * Sludge trap in this type of system must be filled with fresh water.

□ Operation

As well as following the maintenance guide, the entire system must comply with the following regulations

- DIN 1986 (estate drainage systems)
- EN 858 (light liquid separators)

Local drainage regulations and other instructions Only sewage that does not have a detrimental effect on the intended operation of the separator must be led into the system. Emulsions and solvents (cold cleaners, drilling and cutting oil, water-soluble hydrocarbons etc.) must not be allowed to enter the separator. Dispose of these materials together with the special waste. Rainwater from surfaces for which the separator was not intended and domestic sewage must not be led into the separator. With coalescence separators: Do not remove coalescence insert during operation!

The use of alarm systems with big steel AQUAFIX® SKG, SKBP, SKGBP2 and SKGBPL separators is strongly recommended because of the large quantity of light liquid that is stored!

Disposal

Separator systems must be drained at least every six months, but should not be allowed to fill to more than 85% of their storage capacity. Cleaning must occur more often if the storage capacity of the separator or sludge trap is exceeded. Operation must not be interrupted. All separated material must be drained, cleaned and taken away for disposal by an approved disposal company.

Please empty the separator and the sludge trap of this type of system at the same time if possible.

First extract the oil layer from the system and then the layer of water beneath it, into separate tanks if possible. Clean float and seal every time the system is emptied and check operation thereof.

With coalescence separators: If the coalescence material is soiled, remove coalescence material, clean above sludge trap, give damaged coalescence material to disposal company and replace with new material. Replace coalescence material. The sludge trap has a coalescence chamber access flap for removing the coalescence material. Re-fill system with fresh water whenever it is emptied and cleaned.

Attention! Always hold float of seal by hand until it is floating when filling the system. Use mobile ladder when entering the system. Extract air/vapour mixture beforehand. Take the relevant safety precautions! Follow the accident prevention regulations!

In the event of torrential rainfall, a sudden influx into the separator can occur with large separators. When entering the system, prevent influx and pay attention to personal safety.







□ Maintenance

The separator must be serviced at least every 6 months. The system must be emptied to do this. Carefully check that all system components are in good working order and undamaged. Then fill separator and sludge trap with water*, hold seal open by hand or insert later.

* Sludge trap in this type of system must be filled with fresh water.

It is extremely important to follow the accident prevention regulations! Keep these instructions in a clearly visible location in close proximity to the separator!

Coalescence insert description and maintenance guide

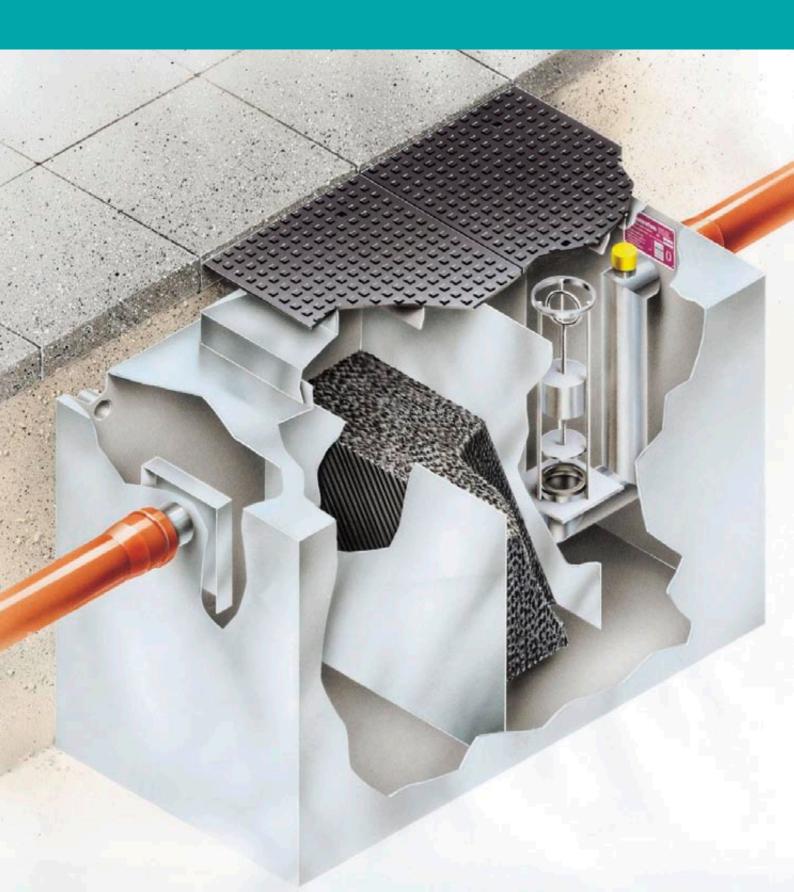
- 1. Description: The coalescence insert consists of lamellar material that is in the coalescence chamber.
- 2. Maintenance: The coalescence material must be checked monthly for soiling. If the material is difficult to rinse back, remove material using the clamp in the coalescence chamber that is accessible from the sludge trap and clean. Replace material with new material if necessary. Then close flap again.

Do not remove coalescence material during operation!

Seal description and maintenance

- Description: The separator outlet is equipped with a seal. When the float drops into the light liquid layer a sealing washer is pressed against the bottom end of the outlet. When filling the system with fresh water, hold float in an elevated position by hand until it can float by itself.
- 2. Maintenance: **Important!** The seal must be held in an elevated position by hand by pulling the float until the maximum water level is reached. Do not release float until it is floating in water, therefore releasing the seal!

SERIES "k" SMALL MADE OF STEEL STRONG SOLUTIONS FOR SMALL FLOWS.





AT A GLANCE:

- 🗹 At least solid 5 mm steel plates
- Separator tank, continuously chargeable up to class D 400

Galvanised inside and outside or coated with several layers of epoxy resin on pretreated surface

SERIES "k" SMALL MADE OF STEEL STRONG SOLUTIONS FOR SMALL FLOWS.

FEATURES

- At least solid 5 mm steel plate
- Entry and maintenance openings
 Size 1: 500 x 630 mm or 500 x 500 mm;
 Size 2: 1000 x 630 mm or 1000 x 500 mm
 (Measures depending on the place of delivery/country)
- Class B 125 or C 250 extension covers with adjustable height (Loading class depending on the place of delivery/country)
- Stop rings to handle the systems
- Separator tank, continuously chargeable up to class D 400
- Galvanised inside and outside or coated with several layers of epoxy resin on pretreated surface (Coating depending on the place of delivery/country)
- Compact design
- Complies with standards EN 858 and EN 1825
- Inlets and outlets made from 5 mm steel plate, same diameter as KG pipes

For light liquid separation systems:

- Easy to remove as required by the norm
- Easy to clean lamellar coalescence material
- Maintenance-free coalescence block
- Sampling system can be integrated

EXTENSIONS

All models are equipped with 500 x 630 mm and 1000 x 630 mm, or with 500 x 500 mm and 1000 x 500 mm covers. They are 200 mm or 100 mm high and are continuously adjustable by up to 40 mm. They have been designed for class B 125 or C 250. Several units can be stacked on top of each other.

Extension cover 500 x 630 mm (Size 1), Weight: 51 kg total, Height: 200 mm, Class C 250, Article no. 80011, Extension cover 1000 x 630 mm (Size 2), Weight: 84 kg total, Height: 200 mm, Class C 250, **Item no. 80012 P**

Extension cover 500 x 500 mm (Size 1), Weight: 45 kg total, Height: 100 mm, Class B 125, Article no. 80021, Extension cover 1000 x 500 mm (Size 2), Weight: 80 kg total, Height: 100 mm, Class B 125, **Item no. 80022 H**



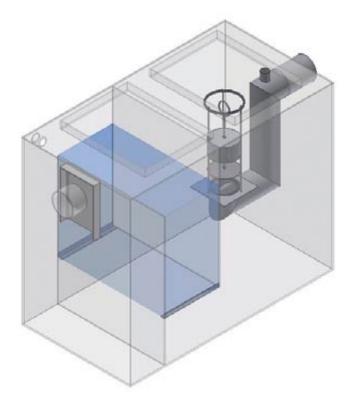


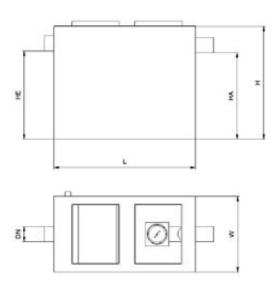




AQUAFIX[®]Separators from steel - Series k

AQUAFIX® - Kk Coalescence separator





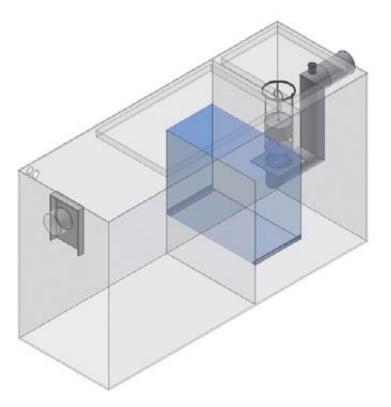
	Length mm	Width mm	Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	Man- hole type 1	Man- hole type 2	Weight mm	storage capa- city l	ltem No.
Kk 01,5	1000	600	800	1	-	87	261	100	600	580	1	1	265,0	120	87501
Kk 03	1000	600	1000	3	-	117	351	100	800	780	1	1	339,0	120	87503
Kk 04	1000	800	1000	4	-	156	468	100	800	780	1	1	419,0	160	87504
Kk 06	1200	800	1200	6	-	184	699	150	940	920	2	-	554,0	192	87506
Kk 08	1500	800	1200	8	-	184	920	150	940	920	2	-	664,0	240	87508
Kk 15	1500	1000	1500	15	-	295	1475	200	1200	1180	2	-	1010,0	300	87515
Kk 10	1500	800	1200	10	-	184	920	150	940	920	2	-	664,0	240	87510
Kk 20	1800	1000	1500	20	-	295	1829	200	1200	1180	2	-	1029,0	360	87520



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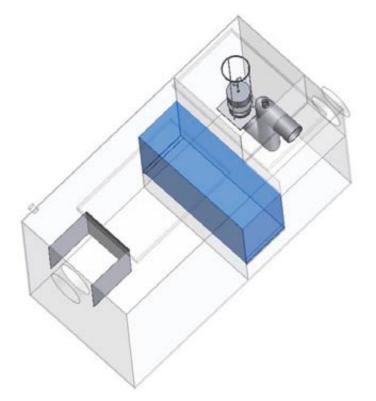


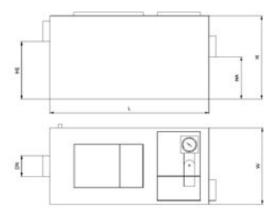
	Length mm	Width mm	5	max. Flow l/s		trap		DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	Man- hole type 1	Man- hole type 2	Weight mm	storage capa- city l	ltem No.
SKk 01,5/0150	1200	600	800	1	-	157	261	100	600	560	1	1	291,0	90	87601
SKk 03/0300	1400	600	1000	3	-	328	328	100	800	750	2	-	363,0	84	87603
SKk 04/0400	1400	800	1000	4	-	406	468	100	800	750	-	1	427,0	120	87604
SKk 06/0600	1800	800	1200	6	-	626	699	150	950	900	-	1	623,0	152	87606
SKk 08/0800	2000	800	1200	8	-	810	662	150	950	900	-	1	699,0	144	87608
SKk 10/1000	2100	800	1300	10	-	1061	734	150	1050	1000	-	1	809,0	144	87610
SKk 15/1500	2300	1100	1600	15	-	1690	1408	200	1300	1250	-	3	1275,0	220	87615
SKk 20/2000	2300	1100	1600	15	-	2253	1830	200	1300	1250	-	3	1371,0	286	87620

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AQUAFIX[®]Separators from steel - Series k

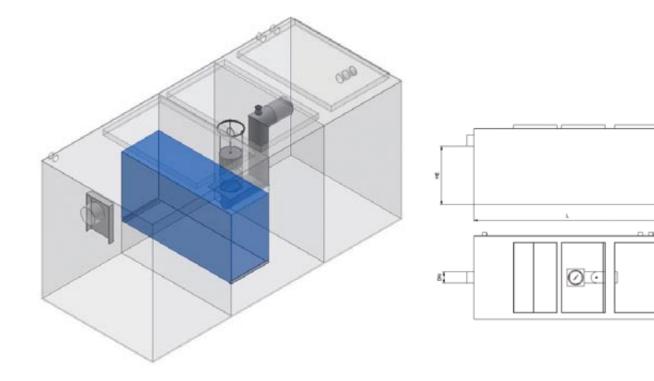
AQUAFIX® - SKBPk Coalescence separator with sludge trap and bypass





	Length mm	Width mm	5	max. Flow l/s	ø Sepe- rator mm	trap		DN in-/ outlet mm			Man- hole type 1	Man- hole type 2	Weight mm	storage capa- city l	ltem No.
SKBPk 03/0300	1200	800	1200	15	-	384	426	150	980	760	2	-	498,0	112	87803
SKBPk 04/0400	1500	800	1200	20	-	473	483	200	930	710	2	-	563,0	136	87804
SKBPk 06/0600	1900	1000	1300	30	-	859	851	200	1030	810	-	2	804,0	210	87806
SKBPk 08/0800	2300	1100	1200	40	-	891	872	300	830	610	-	2	916,0	286	87808
SKBPk 10/1000	2300	1100	1400	50	-	1333	980	300	1030	810	-	2	1073,0	242	87810
SKBPk 15/1500	2500	1200	1800	75	-	1886	1732	400	1330	1110	-	2	1560,0	312	87815
SKBPk 20/2000	2900	1200	1800	100	-	2201	1998	400	1330	1110	-	3	1657,0	360	87820





AQUAFIX® - SKmPk Coalescence separator with sludge trap and pump chamber

	Length mm	Width mm	Height mm		ø Sepe- rator mm	trap	rator capa-	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	Man- hole type 1	Man- hole type 2	Weight mm	storage capa- city l	No.
SKmPk 01,5/0150	2200	600	800	1	-	157	296	100	600	570	3	-	396,0	102	87701
SKmPk 03/0300	1800	800	1000	3	-	312	437	100	800	770	3	-	492,0	112	87703
SKmPk 04/0400	2400	800	1000	4	-	406	562	100	800	770	3	-	574,0	144	87704
SKmPk 06/0600	2200	1100	1200	6	-	607	1012	150	950	920	-	2	950,0	220	87706
SKmPk 08/0800	2700	1200	1100	8	-	836	984	150	850	820	-	3	1111,0	240	87708
SKmPk 10/1000	2700	1200	1300	10	-	1040	1224	150	1050	1020	-	3	1220,0	240	87710
SKmPk 15/1500	3100	1200	1600	15	-	1536	1690	200	1300	1270	-	3	1633,0	264	87715
SKmPk 20/2000	3100	1400	1600	20	-	2253	1971	200	1300	1270	-	3	1766,0	308	87720

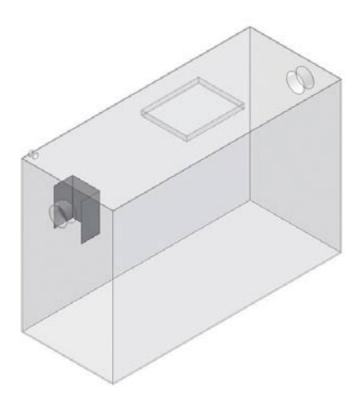
INSTALLATION INSTRUCTIONS

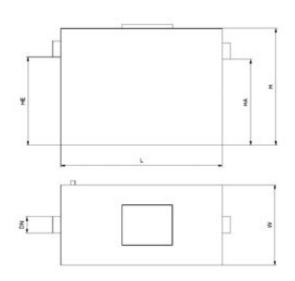
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AQUAFIX[®]Separators from steel - Series k

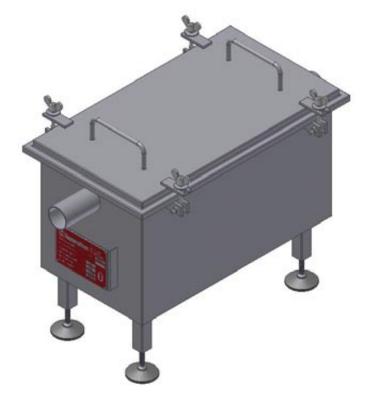
AQUAFIX® - Sk Sludge trap





	Length	Width	Height	max.	ø Sepe-	sludge	sepa-	DN in-/	HE H	HA H	Man-	Man-	Weight	storage	Item
	mm	mm	mm	Flow l/s	rator	trap	rator	outlet	inlet	outlet	hole	hole	kg	capa-	No.
					mm	capa-	capa-	mm	mm	mm	type 1	type 2		city	
						city	city							l	
						l	l								
Sk 100	800	500	600	-	-	100	-	100	350	320	1	-	94,0	-	87000
Sk 150	800	600	600	-	-	150	-	100	350	320	1	-	104,0	-	87001
Sk 200	800	600	700	-	-	200	-	100	450	420	1	-	117,0	-	87002



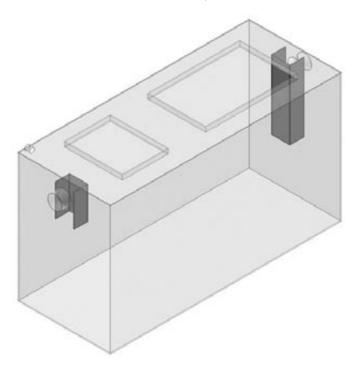


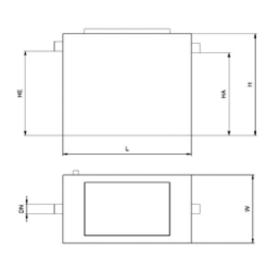
AQUAFIX[®] - Grease separator with sludge trap - freestanding overground installation

	Length	Width	Height	max. ø	øSepe-	sludge	sepa-	DN in-/	HE H	HAH	Man-	Man-	Weight	storage	ltem
	mm	mm	mm	Flow l/s	rator	trap	rator	outlet	inlet	outlet	hole	hole	kg	capa-	No.
					mm	capa-	capa-	mm	mm	mm	type 1	type 2		city	
						city	city							l	
						l	ι								
GB 1	760	415	560	1	-	11	22	50	325	290	-	-	27,0	11	77050
NS 01	950	450	642	1	-	100	96	70	500	470	-	-	70,0	37	77100
NS 02	1650	640	1000	2	-	200	-	100	770	700	-	-	225,0	172	77200

AQUAFIX[®]Separators from steel - Series k

AQUAFIX® - Fk Grease separator

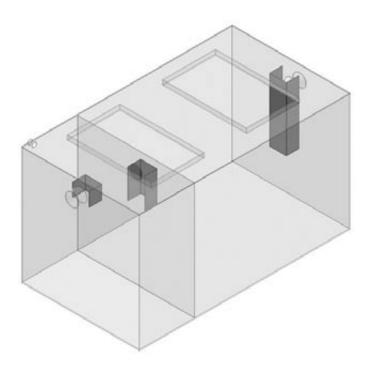


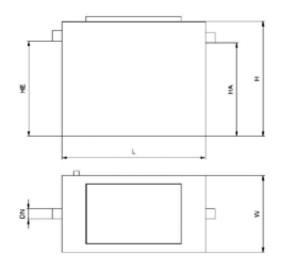


	Length mm	Width mm	Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	Man- hole 1	Man- hole 2	Weight kg	storage capa- city l	ltem No.
Fk 01	1000	500	1000	1	-	-	390	100	800	780	1	-	171,0	100	87101
Fk 02	1200	800	1000	2	-	-	749	100	800	780	1	-	242,0	192	87102
Fk 04	1500	800	1200	4	-	-	1176	100	1000	980	-	1	324,0	240	87104
Fk 07	1800	1000	1200	7	-	-	1674	150	950	930	-	1	416,0	360	87107
Fk 10	2500	1000	1400	10	-	-	2825	150	1150	1130	1	1	597,0	500	87110
Fk 15	3200	1200	1400	15	-	-	4147	200	1100	1080	-	2	609,0	768	87115
Fk 20	3200	1600	1500	20	-	-	6042	200	1200	1180	-	2	953,0	1024	87120
Fk 25	4000	1600	1500	25	-	-	7552	200	1200	1180	-	2	1133,0	1280	87125



AQUAFIX® - SFk Grease separator with sludge trap





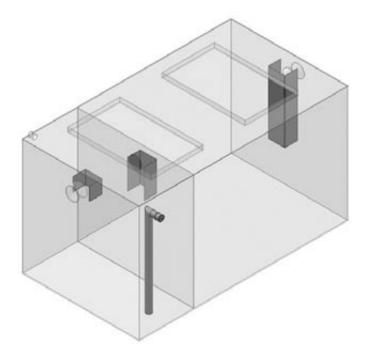
	Length mm	Width mm	Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	Man- hole 1	Man- hole 2	Weight kg	storage capa- city l	ltem No.
SFk 01/0100	1000	500	1000	1	-	113	256	100	800	730	1	-	194,0	70	87201
SFk 02/0200	1200	800	1000	2	-	240	467	100	800	730	-	1	277,0	128	87202
SFk 04/0400	1500	1000	1200	4	-	475	930	100	1000	930	-	1	418,0	200	87204
SFk 07/0700	2400	1000	1400	7	-	715	1890	150	1150	1080	1	1	644,0	350	87207
SFk 10/1000	2500	1400	1400	10	-	1001	2797	150	1150	1080	-	2	793,0	518	87210
SFk 15/1500	3200	1600	1500	15	-	1564	4249	200	1100	1030	-	2	1063,0	752	87215
SFk 20/2000	4000	1800	1500	20	-	2277	5899	200	1200	1130	-	2	1325,0	1044	87220
SFk 25/2500	5000	1800	1500	25	-	2588	7628	200	1200	1130	-	2	1567,0	1350	87225

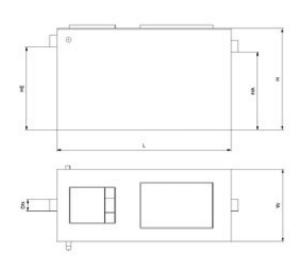
AQUAFIX® STEEL "G"

AQUAFIX® "PP"

AQUAFIX[®]Separators from steel - Series k

AQUAFIX[®] - SFmEk Grease separator with sludge trap and disposal pipe





	Length mm	Width mm	Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	Man- hole 1	Man- hole 2	Weight kg	storage capa- city l	ltem No.
SFmEk 01/0100	1000	500	1000	1	-	113	256	100	800	730	1	-	196,0	70	87301
SFmEk 02/0200	1200	800	1000	2	-	240	467	100	800	730	-	1	279,0	128	87302
SFmEk 04/0400	1500	1000	1200	4	-	475	930	100	1000	930	-	1	420,0	200	87304
SFmEk 07/0700	2400	1000	1400	7	-	715	1890	150	1150	1080	1	1	646,0	350	87307
SFmEk 10/1000	2500	1400	1400	10	-	1001	2797	150	1150	1080	1	1	795,0	518	87310
SFmEk 15/1500	3200	1600	1500	15	-	1564	4249	200	1200	1130	-	2	1065,0	752	87315
SFmEk 20/2000	4000	1800	1500	20	-	2277	5899	200	1200	1130	-	2	1330,0	1044	87320
SFmEk 25/2500	5000	1800	1500	25	-	2588	7628	200	1200	1130	-	2	1572,0	1350	87325



AQUAFIX® STEEL "k" **AQUAFIX**[®] CONCRETE AQUAFIX® "10 PE" AQUAFIX® "PP"

AQUAFIX®SEPARATORS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES "k" MADE OF STEEL

INSTALLATION ADVISES FOR AQUAFIX® SEPARATORS SERIES "k" MADE OF STEEL

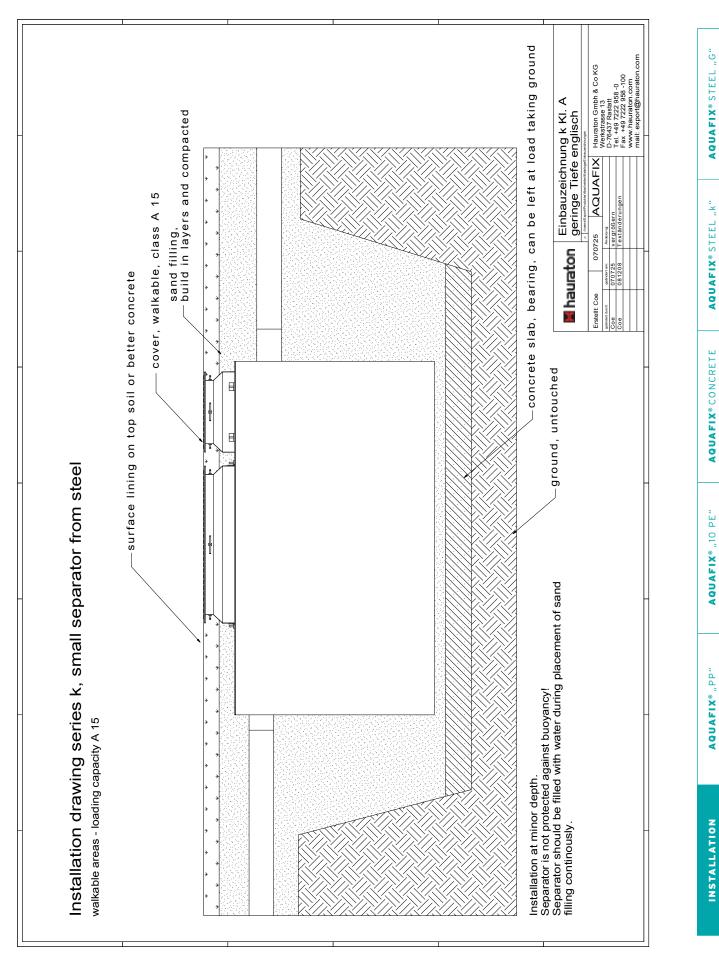
- Please check completeness of delivery and immediately note any parts that are missing or were damaged in transit on the delivery note. Complaints received at a later date will not be accepted. Otherwise our general business terms and conditions apply.
- 2. The separator should be installed outside the washing areas where it will not overfill or back up. It must also be as close as possible to the source of the sewage, in the open but protected from the frost and easy to access by cleaning vehicles.
- The excavation base must be level. If no suitable soil is available a 10 mm thick compressed bed of sand or small pebbles can be used. A foundation plate would be even better. If the foundation soil is non-supporting, make a statically dimensioned foundation plate.
- Take thickness of base and correction layer into consideration in height calculations. Pay attention to height information in installation drawing.
- 5. Tank must be installed in a level position.
- 6. The material must be level as it flows through the separator. The inlet and outlet must be correctly aligned.

The inlet and outlet must not be the wrong way around! Use the correct gradient! Recommended total gradient of system must be 2 - 5%!

- 7. Install system with top edge higher than last inlet point.
- 8. Attach buoyancy protector if necessary and anchor it in the foundation plate.
- 9. Pipelines must be connected without leaks.
- 10. After correctly aligning all tanks, tops, covers and connecting pipes, clean the system!
- 11. Before filling up the system, fill all tanks with fresh water and check for leaks. The leak test is mandatory!
- Do not modify tank or pipes again after filling with sand and compressing. Please refer to provided installation drawing.
- 13. Attach concrete plate to provide buoyancy protection if necessary.
- 14. With liquid separation systems: When filling with fresh water, hold float in raised position by hand until it is able to float independently. Report start-up to relevant authority.

Always follow accident prevention regulations during installation!

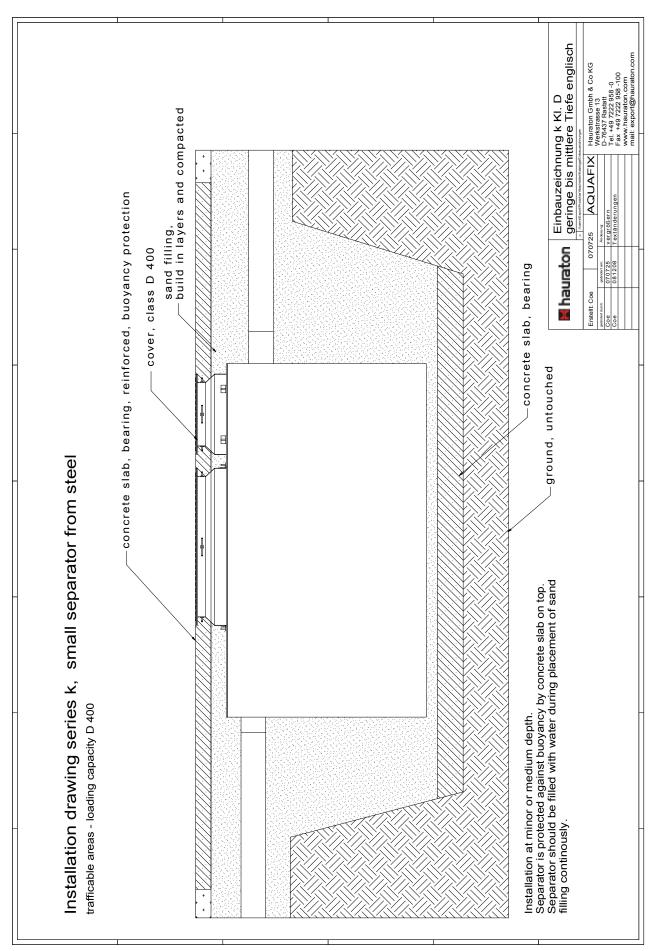
INSTALLATION DRAWING



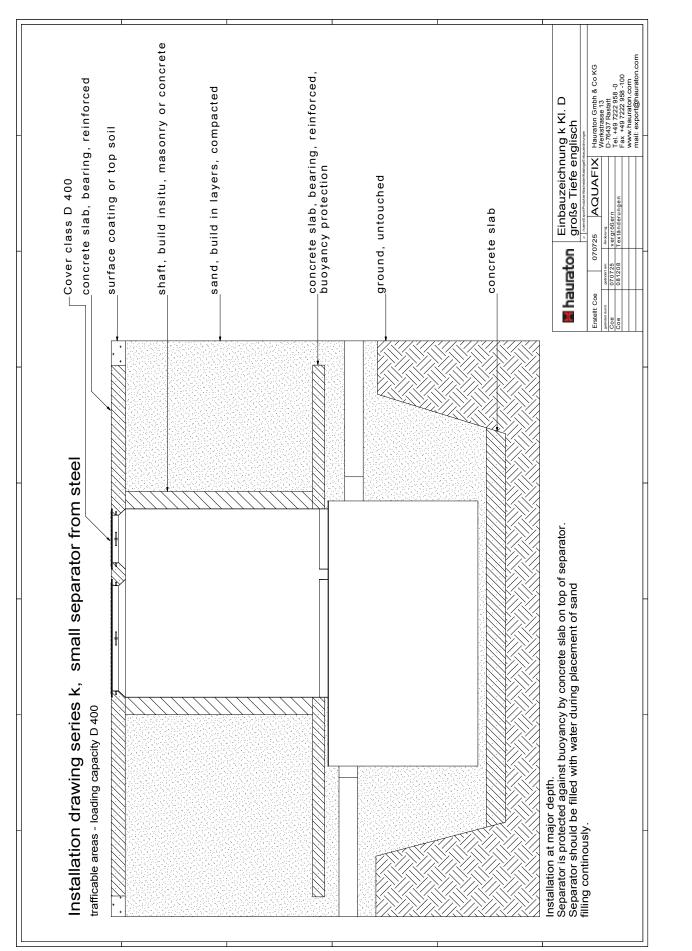
INSTRUCTIONS INSTRUCTIONS







INSTALLATION DRAWING



AQUAFIX® STEEL "G"

AQUAFIX® STEEL "k"

AQUAFIX® CONCRETE

AQUAFIX® "10 PE"

AQUAFIX[®] "PP"

AQUAFIX®SEPARATORS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES ,,k" MADE OF STEEL

OPERATION AND MAINTENANCE OF AQUAFIX® LIGHT LIQUID SEPARATORS SERIES "k" MADE OF STEEL

□ Before start-up

1. Clean entire system and remove residual mortar, soil etc.

2. Fill sludge trap and separator with fresh water.* Attention! Always hold float of seal in hand when filling until it can float by itself. Please ensure that water level is same in all chambers of tank, and fill in sequence!

3. Re-check joints of system for leaks.

* Sludge trap in this type of system must be filled with fresh water.

\Box Operation

As well as following the maintenance guide, the entire system must comply with the following regulations

- DIN 1986 (estate drainage systems)
- EN 858 (light liquid separators)

• Local drainage regulations and other instructions Only sewage that does not have a detrimental effect on the intended operation of the separator must be led into the system. Emulsions and solvents (cold cleaners, drilling and cutting oil, water-soluble hydrocarbons etc.) must not be allowed to enter the separator. Dispose of these materials together with the special waste. Rainwater from surfaces for which the separator was not intended and domestic sewage must not be led into the separator. With coalescence separators: Do not remove coalescence insert during operation!



Seal description and maintenance

- Description: The separator outlet is equipped with a seal. When the float drops into the light liquid layer a sealing washer is pressed against the bottom end of the outlet. When filling the system with fresh water, hold float in an elevated position by hand until it can float by itself.
- Maintenance: Important! The seal must be held in an elevated position by hand by pulling the float until the maximum water level is reached. Do not release float until it is floating in water, therefore releasing the seal!
 Keep these instructions in close proximity to the separator!

□ Disposal

Separator must be drained at least every six months, but should not be allowed to fill to more than 85% of its storage capacity. Cleaning must occur more often if the storage capacity of the separator or sludge trap is exceeded. Operation must not be interrupted. All separated material must be drained, cleaned and taken away for disposal by an approved disposal company.

Please empty the separator and the sludge trap of this type of system at the same time if possible.

First extract the oil layer from the system and then the layer of water beneath it, into separate tanks if possible. Clean float and seal every time the system is emptied and check operation thereof.

With coalescence separators: If the coalescence material is soiled, remove coalescence material, clean above sludge trap, give damaged coalescence material to disposal company and replace with new material. Replace coalescence material. Re-fill system with fresh water whenever it is emptied and cleaned.

Attention! Always hold float of seal by hand until it is floating when filling the system. Use mobile ladder when entering the system. Extract air/vapour mixture beforehand. Take the relevant safety precautions! Follow the accident prevention regulations!





□ Maintenance

Separator must be serviced at least every 6 months. System must be emptied to do this. Carefully check that all system components are in good working order and undamaged. Then fill separator and sludge trap with water*, hold seal open by hand or insert later.

* Sludge trap of this type of system must be filled with fresh water.

It is extremely important to follow the accident prevention regulations! Keep these instructions in close proximity to the separator!

Coalescence insert description and maintenance guide

- 1. Description: The coalescence insert consists of lamellar material that is in the coalescence chamber.
- 2. Maintenance The coalescence material must be checked monthly for soiling. If it cannot be rinsed back easily it must be removed and cleaned. Replace material with new material if necessary. Do not remove coalescence material during operation!

OPERATION AND MAINTENANCE OF STEEL AQUAFIX GREASE SEPARATORS

□ Before start-up

Clean entire system and remove any residual mortar, soil etc. if necessary. Fill entire system with fresh water. Check joints of system for leaks.

\Box Operation

As well as the maintenance guide, the following instructions must be followed for the entire system:

- DIN 4040 (grease separation systems)
- DIN 1986 (estate drainage systems)

 Local water removal regulations and other instructions
 Only sewage that does not have a detrimental effect on the intended operation of the separator must be led to the separator. It is particularly important to prevent domestic sewage and light mineral liquids from entering the separator.
 Do not allow rainwater to enter the system.
 Keep these instructions in close proximity to the separator!

Disposal

- Grease separators must be cleaned at least once per month, possibly more frequently. Cleaning must take place more frequently if the separator or sludge trap storage capacity is exceeded. The operation of the separator must not be affected.
- 2. Have all separated material drained, cleaned and taken away by an approved disposal company.
- 3. Fill entire system with fresh water after it has been emptied and drained.
- 4. Use mobile ladders when entering the system. Extract vapour/air mixture beforehand. Pay attention to accident prevention regulations!

□ Maintenance

The separator must be serviced at least once per month. The system must be drained and cleaned in order to do this. Carefully check that all system components are in good working order and undamaged. Then refill system with fresh water. It is extremely important to observe the accident prevention regulations! AQUAFIX[®] "PP"

AQUAFIX[®]SEPARATORS

SERIES MADE OF CONCRETE SOLID CONSTRUCTIONS FOR HEAVY DUTY.





AT A GLANCE:

- High quality concrete
- Strong wall thickness
- Conforms to standards even down to the details

AQUAFIX®SEPARATORS

SERIES MADE OF CONCRETE SOLID CONSTRUCTIONS FOR HEAVY DUTY.

FEATURES

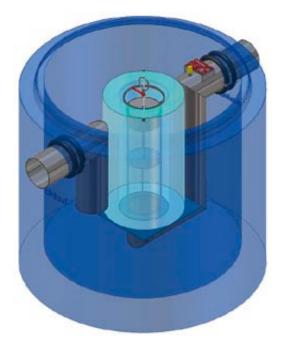
- high grade reinforced concretec C35/45 in accordance with Eurocode EC 206, DIN 1045 and 4281, wall thickness at least 120 mm
- coating consisting of three layers of epoxy resin resistant to light liquids and fatty acids
- conform to European standards EN 858 and 1825



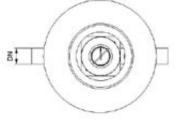


AQUAFIX[®]Separators from concrete - Series P

AQUAFIX® - K Coalescence separator



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	Length mm	Width mm	Height mm		ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	No.
K 03	1300	1300	1085	3	1000	-	530	110	900	875	625	-	2160,0	154	103030P
K 06	1300	1300	1085	6	1000	-	530	110	900	875	625	-	2160,0	154	103060P
K 10	1300	1300	1085	10	1000	-	530	150	845	820	625	-	2160,0	162	103100P
K 15	1500	1500	1285	15	1200	-	930	200	1000	975	625	-	3360,0	246	103150P
K 20	1800	1800	1285	20	1500	-	1450	200	1000	975	625	-	4470,0	332	103200P
K 30	2300	2300	1535	30	2000	-	3220	250	1200	1175	800	-	7360,0	628	103300P
K 40	2740	2740	2035	40	2500	-	7480	250	1675	1650	800	-	10200,0	996	103400P
K 50	2740	2740	2035	50	2500	-	8460	250	1900	1875	800	-	10300,0	986	103500P



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AQUAFIX [®] - K	Coalescence	separator -	rectangular	shape
	courescence	Separator	rectungulu	Shape

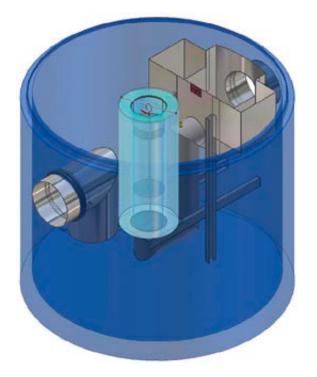
	Length mm	Width mm	5	max. (Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm		HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	ltem No.
K 060 rectangular	3660	2360	2500	60	-	-	11075	300	1820	1800	1000	1000	17421,0	2075	178060
K 080 rectangular	4910	2360	2500	80	-	_	15005	300	1820	1800	1000	1000	22112,0	2850	178080
K 100 rectangular	5660	2360	2500	100	-	-	17446	300	1820	1800	1000	1000	24926,0	3314	178100

AQUAFIX® STEEL "G"

INSTALLATION INSTRUCTIONS

AQUAFIX[®]Separators from concrete - Series P

AQUAFIX® - K2BP Coalescence separator with double-bypass

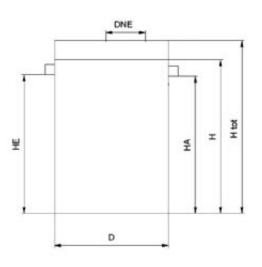


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	Length mm	Width mm	0	max. Flow l/s		trap	rator	mm		HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	ltem No.
K2BP 20/0200	2740	2740	2000	200	2500	-	5450	500	1430	1275	625	-	7100,0	1227	174020P
K2BP 40/0400	2740	2740	2250	400	2500	-	6185	600	1600	1425	625	-	7200,0	1227	174040P
K2BP 60/0600	2740	2740	2500	600	2500	-	6920	800	1750	1575	625	-	7900,0	1227	174060P



AQUAFIX® - SK Coalescence separator with sludge trap



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	Length mm	Width mm	5	max. Flow l/s	ø Sepe- rator mm	trap	rator	DN in-/ outlet mm		HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	No.
SK 04/0600	1300	1300	2000	4	1000	628	608	150	1720	1695	625	-	2850,0	132	176043
SK 06-10/2500	1800	1800	2500	10	1500	2473	1104	150	2195	2170	625	-	5380,0	364	176105
SK 06-10/5000	2740	2740	2200	10	2500	4906	3557	150	1895	1870	625	-	7830,0	1011	176107
SK 15/3000	2740	2740	2200	15	2500	2944	5029	200	1875	1800	625	-	7450,0	1011	176155
SK 15/5000	2740	2740	2500	15	2500	4906	4538	200	2125	2100	625	-	9410,0	1011	176157
SK 20/4000	2740	2740	2500	20	2500	3925	5520	200	2125	2100	625	-	9410,0	1070	176204
SK 30/5000	2740	2740	2200	30	2500	2944	5029	250	1800	1775	800	-	6688,0	1079	176305
SK 40/4000	2740	2740	2750	40	2500	3925	6746	250	2350	2325	800	-	7368,0	1104	176406
SK 50/3000	2740	2740	2750	50	2500	2944	7727	250	2350	2325	800	-	7376,0	1128	176505

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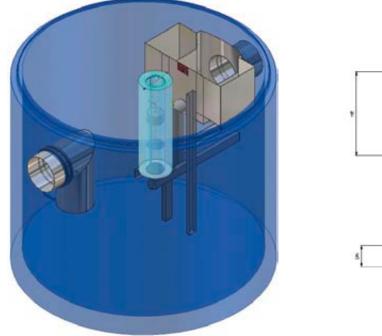
AQUAFIX® STEEL "G"

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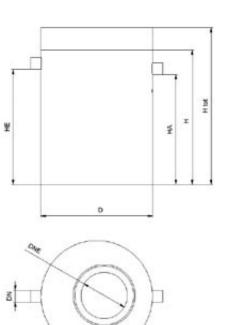
AQUAFIX[®]Separators from concrete - Series P

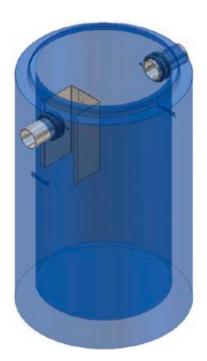
AQUAFIX® - SK2BP Coalescence separator with sludge trap and double-bypass



	Length mm	Width mm	Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm		HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	No.
S2KBP 10/0100	2740	2740	2540	100	2500	3300	3595	400	1625	1550	625	-	7200,0	1011	175010P
SK2BP 15/0150	2740	2740	2735	150	2500	3300	4540	400	1870	1750	625	-	7900,0	1227	175015P





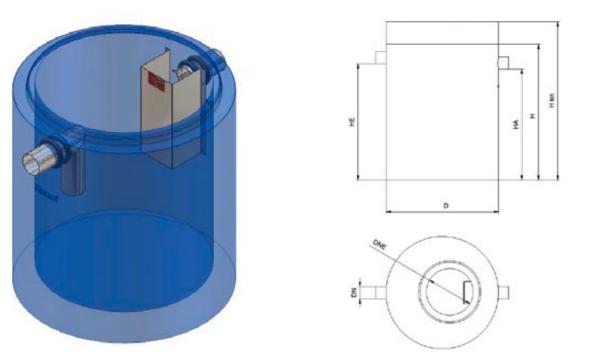


	Length mm	Width mm	5	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	ltem No.
S 0650/03	1300	1300	1550	-	1000	650	-	100	1275	1225	-	-	2610,0	-	101043P
S 1300/03	1500	1500	1625	-	1200	1300	-	100	1350	1300	-	-	3350,0	-	101064P
S 2500/10	1800	1800	1920	-	1500	2500	-	150	1620	1570	-	-	4940,0	-	101105P
S 3500/10	2300	2300	1500	-	2000	3500	-	150	1200	1150	-	-	5860,0	-	101106P
S 5000/10	2500	2500	2000	-	2000	5000	-	150	1700	1650	-	-	7830,0	-	101107P
S 7500/10	2800	2800	2170	-	2500	7500	-	150	1870	1820	-	-	9930,0	-	101108P
S 10000/10	2800	2800	2800	-	2500	10000	-	150	2500	2450	-	-	11890,0	-	101109P
S 2500/20	1800	1800	1920	-	1500	2500	-	200	1570	1520	-	-	4940,0	-	101205P
S 5000/20	2500	2500	2000	-	2000	5000	-	200	1650	1600	-	-	7830,0	-	101207P
S 8000/20	2800	2800	2250	-	2500	8000	-	200	1900	1850	-	-	9930,0	-	101208P
S 10000/20	2800	2800	2750	-	2500	10000	-	200	2400	2350	-	-	11890,0	-	101209P
S 5000/30	2500	2500	2000	-	2000	5000	-	250	1600	1550	-	-	5290,0	-	101307P
S 7500/30	2800	2800	2170	-	2500	7500	-	250	1770	1720	-	-	9930,0	-	101308P
S 10000/30	2800	2800	2800	-	2500	10000	-	250	2400	2350	-	-	11890,0	-	101309P

CIVILS

AQUAFIX[®]Separators from concrete - Series P

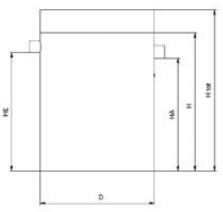
AQUAFIX® - F Grease separator

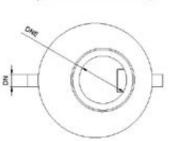


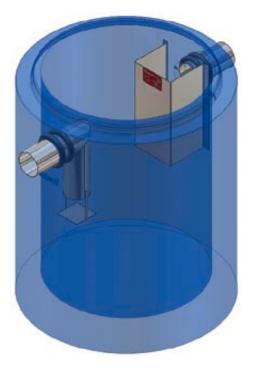
	Length mm	Width mm	Height mm	max. Flow l/s	rator	sludge trap capa- city l	rator	DN in-/ outlet mm		HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	No.
F 04	1500	1500	1560	4	1200	-	1300	150	1375	1350	-	-	2620,0	238	108040
F 07	1800	1800	1560	7	1500	-	1811	150	1200	1175	-	-	4125,0	397	108070
F 10	2300	2300	1360	10	2000	-	2592	150	1270	1245	-	-	5370,0	741	108100
F 15/20	2740	2500	1800	20	2500	-	6259	200	1450	1425	-	-	8765,0	1139	108150



AQUAFIX® - SF Grease separator with sludge trap







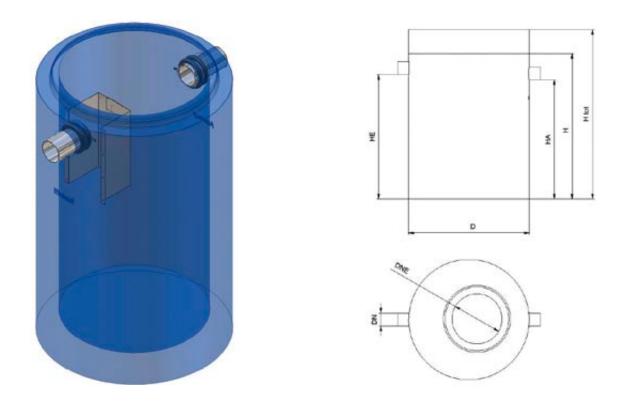
	Length mm	Width mm	Height mm	max. Flow l/s		trap	sepa- rator capa- city l			HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	No.
SF 04/0400	1300	1300	1500	4	1000	400	385	150	1220	1195	625	-	1696,0	157	178042
SF 04/0800	1300	1300	2000	4	1000	800	385	150	1730	1705	625	-	2012,0	157	178043
SF 10/1000	1800	1800	1700	10	1500	1007	1096	150	1420	1395	625	-	3201,0	353	178104
SK 10/2000	1800	1800	2300	10	1500	2015	1096	150	2030	2005	625	-	3757,0	353	178105
SF 20/2000	2300	2300	2000	20	2000	2010	2262	200	1650	1625	625	-	5291,0	628	178205

AQUAFIX® STEEL "G"

CIVILS

AQUAFIX[®]Separators from concrete - Series P

AQUAFIX® - Sf Sludge trap for grease



_	Length mm	Width mm		max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	ltem No.
Sf 800 l for F 04	1300	1300	1550	4	1000	800	-	150	1250	1200	-	-	1678,0	_	107043P
Sf 700 l for F 07	1300	1300	1550	7	1000	700	-	150	1250	1200	-	-	1678,0	-	107073P
Sf 1400 l for F 07	1500	1500	1625	7	1200	1400	-	150	1325	1275	-	-	2219,0	-	107074P
Sf 2500 l for F 10	1800	1800	1920	10	1500	2500	-	150	1620	1570	-	-	3336,0	-	107104P
Sf 2500 l for F 20	1800	1800	1920	20	1500	2500	-	200	1570	1520	-	-	3336,0	-	107205P



AQUAFIX® STEEL "G"
AQUAFIX® STEEL "k"
AQUAFIX ® CONCRETE
AQUAFIX ® "10 PE"
AQUAFIX® "PP"

INSTALLATION INSTRUCTIONS

AQUAFIX®SEPARATORS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

INSTALLATION ADVISES FOR AQUAFIX®SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

- Please check completeness of delivery. Note any missing parts or transit damage that has occurred on the delivery note immediately. Complaints that are received later will not be entertained. Otherwise our general terms and conditions apply.
- 2. The separator system must be installed in a location outside the washing areas where it will not overflow or back up, as close as possible to the location where the waste water occurs. It must also be in the open, frostfree and easily accessible for cleaning vehicles. The drains and pipes must be able to drain until empty.
- The base of the excavation must be level. If no suitable soil is available, create a 10 cm thick bed of sand and fine gravel and compress. If the ground is non-load bearing, make a statically measured foundation slab. Put a 10 cm compensation layer of sand onto the foundation slab.
- Take thickness of foundation and compensation layer into consideration during height measurements. Pay attention to height information in installation drawing.
- 5. The tanks must be installed in a level position.

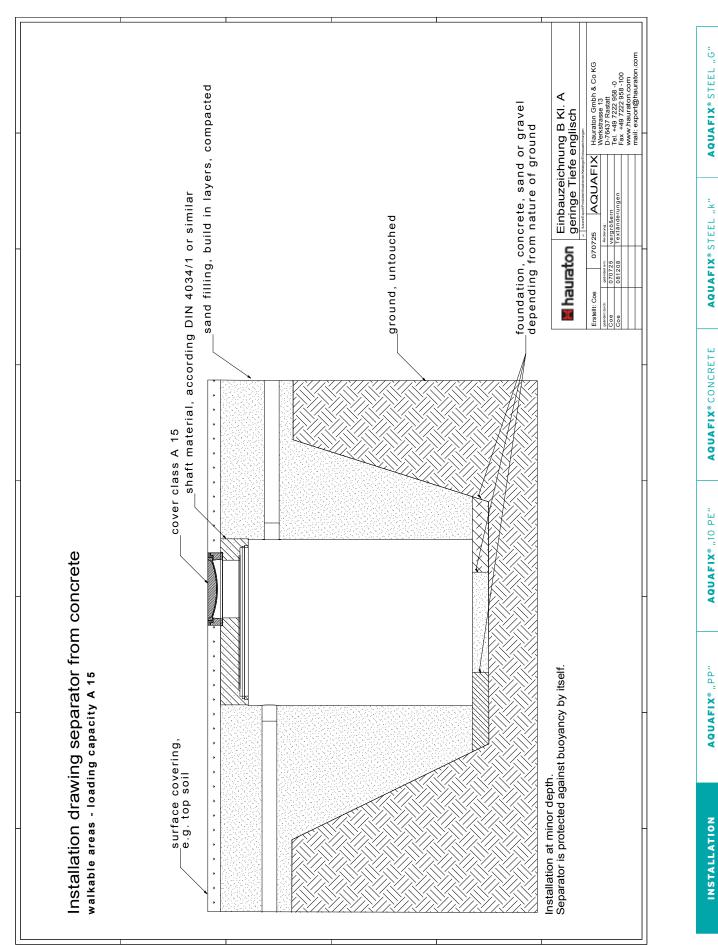
Do not confuse the inlet with the outlet! Adhere to order of tanks! Maintain slope! Recommended total incline of system 2 - 5%!

6. Install system so that top edge is higher than final admission point.

- 7. Manual transport on side can be done easily with steel bars which can be put through the holes of the outer stop rings.
- 8. Arrange maintenance shaft at outlet side such that all separator areas are accessible and the floats and the coalescence insert can be removed if necessary.
- Ensure that the seals are correctly seated! Please use an adequate quantity of antiseize agent. It is advisable to offset the relative positions of the shaft elements in mortar or using hose bearings.
- 10. The distance between the individual elements should be 60 100 cm.
- 11. Ensure that pipelines are connected without leaks.
- 12. Fill all tanks with fresh water before filling and check for leaks. This leak test is mandatory!
- 13. Do not alter positions of tanks and lines when filling and compressing with sand. Please pay attention to the provided drawing.
- 14. When all tanks, covering plates, tops and covers and connecting pipes have been correctly located, **the system must be cleaned.**
- 15. When filling light liquid separators with fresh water, hold float in raised position until it can float independently.

Report start-up to the responsible authority. Pay attention to accident prevention regulations during installation!

INSTALLATION DRAWING

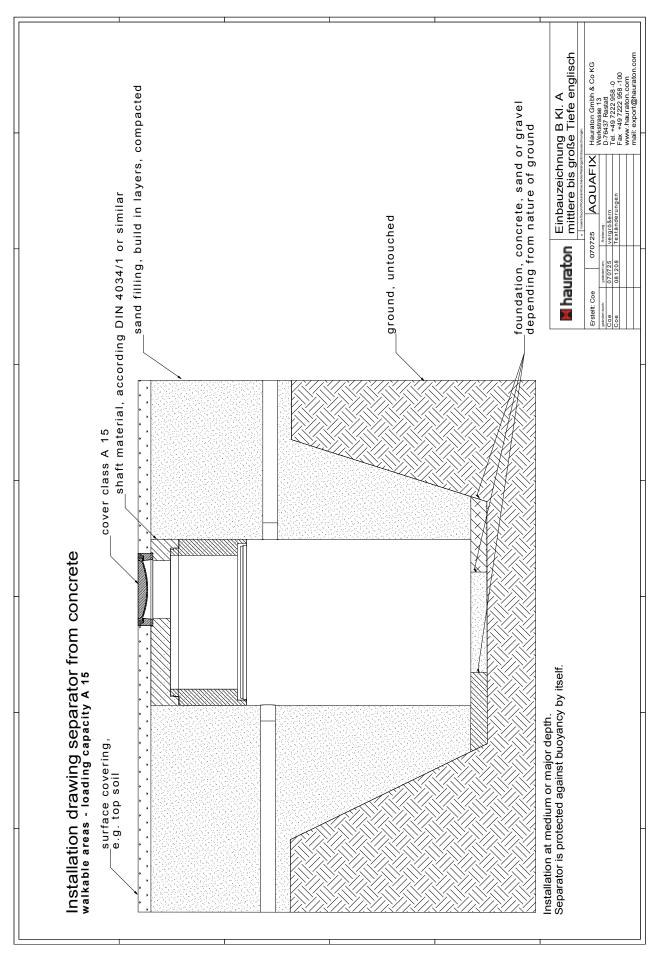


INSTRUCTIONS INSTRUCTIONS

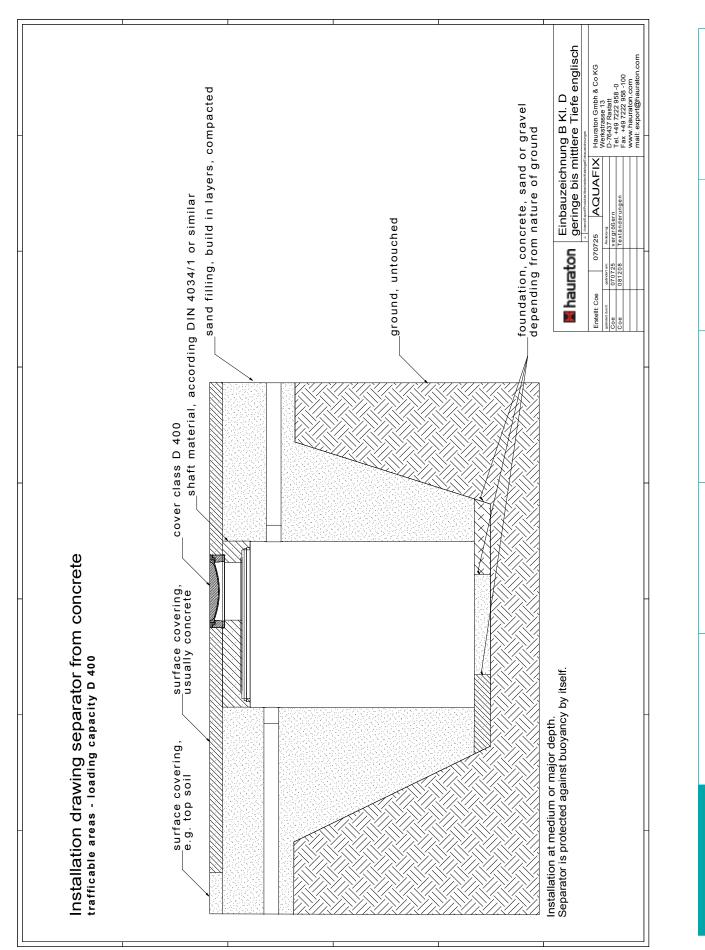
AQUAFIX® STEEL "G"







INSTALLATION DRAWING



AQUAFIX® "10 PE"

AQUAFIX[®] "PP"

AQUAFIX® STEEL "G"

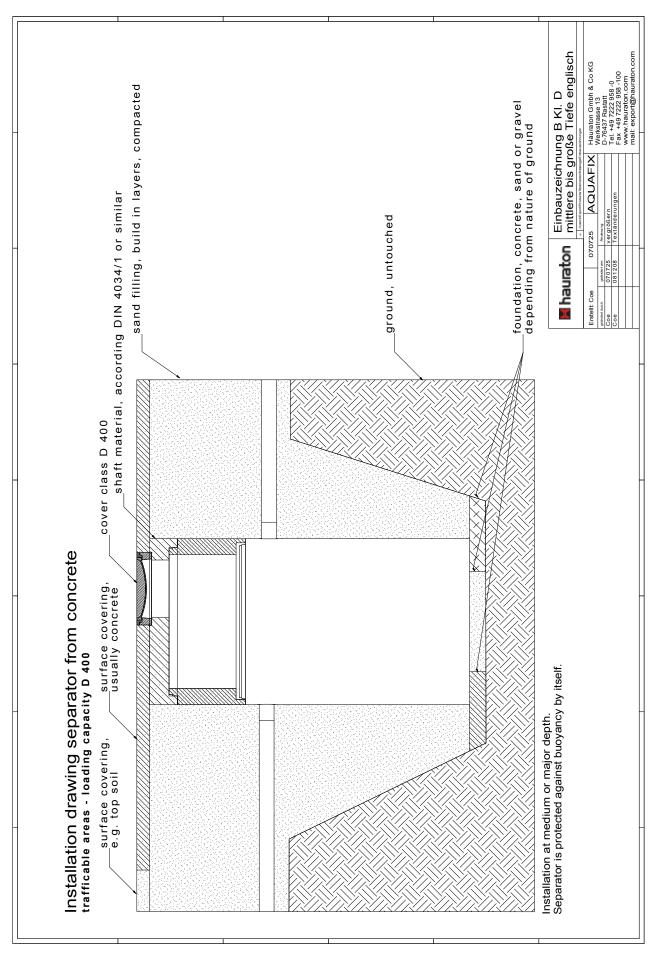
AQUAFIX® STEEL "K"

AQUAFIX[®] CONCRETE

INSTRUCTIONS INSTRUCTIONS







AQUAFIX® STEEL "G"
AQUAFIX® STEEL "k"
AQUAFIX® CONCRETE
AQUAFIX® "10 PE"
AQUAFIX®"PP"
INSTALLATION INSTRUCTIONS

AQUAFIX®SEPARATORS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

OPERATION AND MAINTENANCE OF AQUAFIX® LIGHT LIQUID SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

□ Before start-up

- Clean the entire system and remove mortar residue, soil etc. Remove lock during this operation and (if separator is a coalescence separator) remove the coalescence insert and replace them again afterwards.
- 2. Fill sludge trap and separator with fresh water. Attention! Always hold lock in raised position when filling, or replace when filling is complete.
- 3. Re-check tightness of joints in the system.

\Box Operation

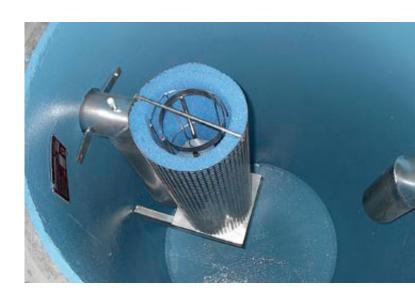
As well as the maintenance guide, the following regulations must be observed for the entire system:

- DIN 1986 (Land drainage systems)
- DIN 1999 (Light liquid separating systems)
- EN 858 (Light liquid separating systems)
- Local drainage statutes and other regulations

Only waste water that does not affect the intended operation of the separator must be led to the separating system. Emulsions and solvents (cold cleaners, drilling and cutting oils, water-soluble hydrocarbons etc.) must be kept away from the separating system and disposed off as special waste. Rainwater from surfaces for which the separating system is not intended and domestic waste water must not be led to the separating system. Do not remove coalescence insert during operation!

□ Disposal

Separating systems must be emptied at least every six months unless otherwise stipulated by the monitoring authority, but no later than when 85% of the storage capacity has been reached. The cleaning intervals must be shorter if the storage capacity of the separator or the sludge trap is exceeded. The operation of the equipment must not be interrupted.



The separated material must only be emptied, cleaned and taken away by authorised disposal companies.

The oil layer and water beneath it must be extracted first, preferably into separate tanks. The float and the lock must be cleaned and the operation thereof checked every time the equipment is emptied. Remove coalescence insert, clean the sludge trap, give damaged coalescence material to the disposal company and replace with new material. Re-insert the coalescence insert.

Every time that the equipment is emptied and cleaned, refill system with fresh water. Hold lock open by hand when doing this or insert it again afterwards. Use mobile ladders when climbing into the system. Extract vapour/ air mixture beforehand.

\Box Servicing

The separator system must be serviced at least every 6 months. The system may need to be emptied to do this. Carefully check operation of all parts of the system and inspect for damage. Then fill separator and sludge trap with fresh water, Hold lock open by hand or insert afterwards. **Pay attention to accident prevention regulations!**

OPERATION AND MAINTENANCE OF AQUAFIX® LIGHT LIQUID SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

□ Before start-up

Clean the entire system and remove mortar residue, soil etc. Fill entire system with fresh water. Check joints of system for leaks.

\Box Operation

As well as the maintenance guide, the following regulations must be observed for the entire system:

- DIN 1986 (Land drainage systems)
- DIN 1999 (Light liquid separating systems)
- EN 858 (Light liquid separating systems)

Local drainage statutes and other regulations
 Only waste water that does not affect the intended
 operation of the separator must be led to the separating
 system. Particularly domestic waste water and mineral
 light liquids must be kept away from the separating system,
 nor must rainwater be led to the separating system.

Disposal

- The separating systems must be cleaned at least every 14 days more frequently if necessary. The cleaning intervals must be shorter if the storage capacity of the separator or the sludge trap is exceeded. The operation of the equipment must not be interrupted.
- 2. The separated material must only be emptied, cleaned and taken away by authorised disposal companies.
- 3. Every time that the equipment is emptied and cleaned, refill system with fresh water.
- 4. Use mobile ladders when climbing into the system. Extract vapour/air mixture beforehand. Pay attention to accident prevention regulations!

□ Servicing

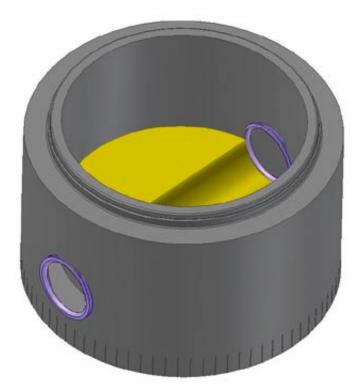
The separator system must be serviced at least every 14 days. The system must be emptied and cleaned to do this. Carefully check operation of all parts of the system and inspect for damage. Then fill the system with fresh water. Pay attention to accident prevention regulations!

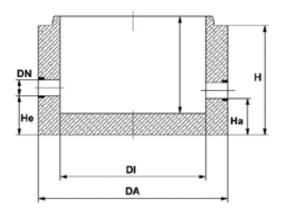




AQUAFIX[®]Shaft material - Series P

AQUAFIX® - Sample taking shaft



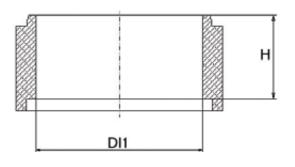


	Length mm	Width mm	Height mm	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	Weight kg	ltem No.
P100	1300	1300	750	100	270	250	1100,0	159100P
P125	1300	1300	750	125	270	250	1100,0	159125P
P150	1300	1300	750	150	270	250	1100,0	159150P
P200	1300	1300	750	200	270	250	1100,0	159200P
P250	1300	1300	750	250	270	250	1100,0	159250P



AQUAFIX® - Shaft rings

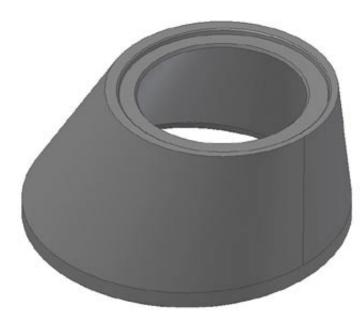


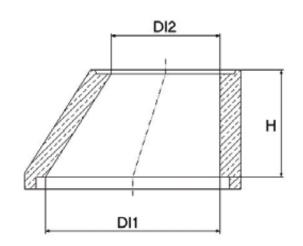


	Length mm	Width mm	Height mm	Weight kg	ltem No.
Shaft ring 1000/250	-	-	-	250,0	151025
Shaft ring 1000/500	-	-	=	500,0	151050
Shaft ring 1200/250	-	-	-	340,0	151225
Shaft ring 1200/500	-	-	-	680,0	151250
Shaft ring 1500/250	-	-	-	530,0	151525
Shaft ring 1500/500	-	-	=	1060,0	151550

AQUAFIX[®]Shaft material - Series P

AQUAFIX® - Shaft conus

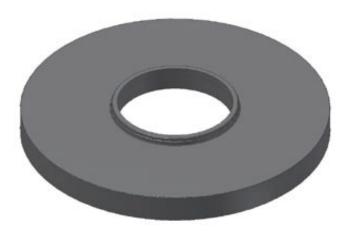


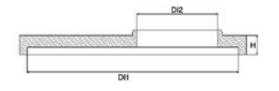


	Length mm	Width mm	Height mm	Weight kg	ltem No.
Shaft sleeve 1000/600	-	-	-	600,0	151060
Shaft sleeve 1200/600	-	-	-	1000,0	151260



AQUAFIX® - Reductionplates

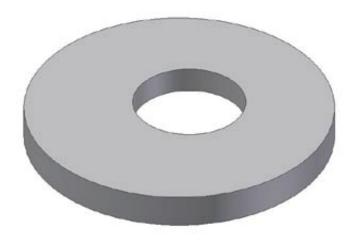


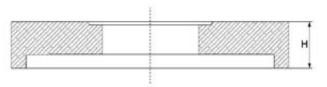


	Length mm	Width mm	Height mm	Weight kg	ltem No.
Reduktionplate 1200/1000	-	-	-	600,0	153121
Reductionplate 1500/1000	-	-	-	1050,0	153151
Reductionplate 2000/1000	-	-	=	1900,0	153201
Reductionplate 2500/1000	-	_	-	2500,0	153251

AQUAFIX[®]Shaft material - Series P

AQUAFIX® - Cover plates





	Length mm	Width mm	Height mm	Weight kg	ltem No.
cover plate 1300/1000/0625	-	-	-	600,0	141001
cover plate 1800/1500/0625	-	-	-	950,0	141501
cover plate 1500/1200/0625	-	-	-	820,0	141205
cover plate 2300/2000/0625	-	-	-	2070,0	142002
cover plate 2800/2500/0625	_	-	-	3143,0	142506



AQUAFIX® STEEL "G"
AQUAFIX® STEEL "k"
AQUAFIX ® CONCRETE
AQUAFIX ® "10 PE"
AQUAFIX® "PP"

INSTALLATION INSTRUCTIONS

AQUAFIX[®]SEPARATORS

SERIES MADE OF CONCRETE SOLID CONSTRUCTIONS FOR HEAVY DUTY.





AT A GLANCE:

- High quality concrete
- Strong wall thickness
- Conforms to standards even down to the details

SERIES MADE OF CONCRETE SOLID CONSTRUCTIONS FOR HEAVY DUTY.

FEATURES

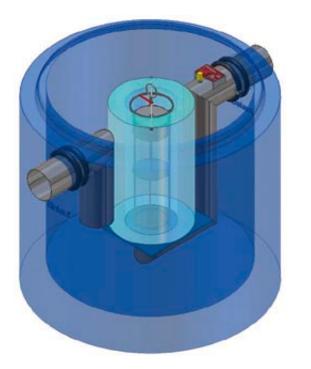
- high grade reinforced concretec C35/45 in accordance with Eurocode EC 206, DIN 1045 and 4281, wall thickness at least 120 mm
- coating consisting of three layers of epoxy resin resistant to light liquids and fatty acids
- conform to European standards EN 858 and 1825

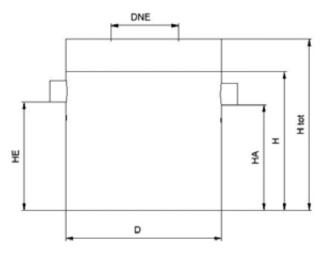


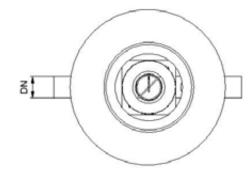


AQUAFIX[®]Separators from concrete - Series H

AQUAFIX® - K Coalescence separator



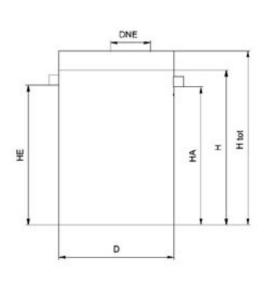


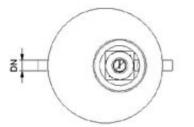


	Length mm	Width mm	5	max. Flow l/s		5	rator		H in-	H out-	DNE man- hole 1	man-	kg	storage capacity l	ltem No.
K 10 H	1240	1240	1150	10	1000	-	518	150	900	875	800	-	1418,0	157	103100H
K 20 H	1740	1740	1350	20	1000	-	1439	200	900	875	800	-	2726,0	353	103200H



AQUAFIX® - SK Coalescence separator with sludge trap







	Length mm	Width mm	5	max. Flow l/s	ø Sepe- rator mm	trap	rator	DN in-/ outlet mm	H in-	H out-	man-		5	storage capacity l	
SK 04/0650 H	1240	1240	2000	4	1000	650	575	150	1750	1725	800	-	2410,0	157	176043H
SK 06-10/2500 H	1740	1740	2500	10	1500	2385	1166	150	2200	2175	800	-	4479,0	353	176105H

AQUAFIX® STEEL "G"

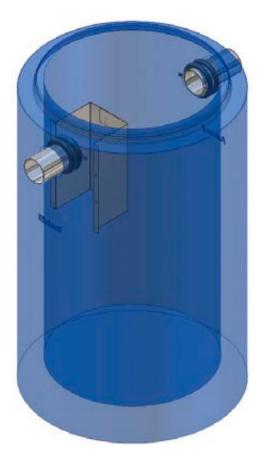
AQUAFIX® STEEL "k"

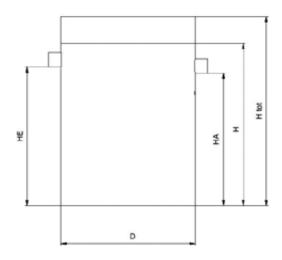
AQUAFIX[®] CONCRETE

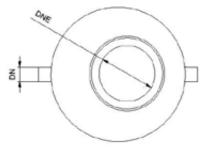
CIVILS

AQUAFIX[®]Separators from concrete - Series H

AQUAFIX[®] - S Sludge trap



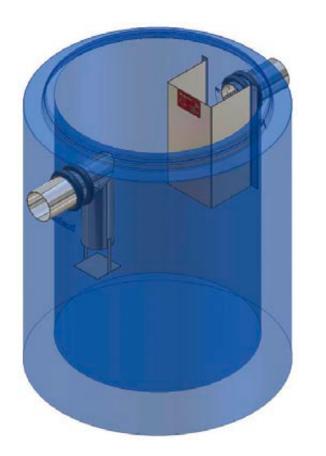




	Length mm	Width mm	5	max. Flow l/s	ø Sepe- rator mm	trap	rator	in-/	H inlet	HA H out- let mm	man-		kg	storage capacity l	ltem No.
S 10/02500 H	1740	1740	1950	-	1500	2500	-	150	1650	1625	800	-	3607,0	- 1	01105H
S 20/02500 H	1740	1740	1950	-	1500	2500	-	200	1600	1575	800	-	3596,0	- 1	01205H



AQUAFIX® - SF Grease separator with sludge trap



	Length mm	Width mm	5	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm	HE H in- let mm	H out-	man-		5	storage capacity l	ltem No.
SF 04/0400 H	1240	1240	1600	4	1000	400	418	150	1220	1170	800	-	1968,0	157	178042H
SF 10/1000 H	1740	1740	1800	10	1500	1000	1766	150	1420	1370	800	-	3388,0	350	178104H

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INSTALLATION INSTRUCTIONS SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

INSTALLATION ADVISES FOR AQUAFIX®SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

- Please check completeness of delivery. Note any missing parts or transit damage that has occurred on the delivery note immediately. Complaints that are received later will not be entertained. Otherwise our general terms and conditions apply.
- 2. The separator system must be installed in a location outside the washing areas where it will not overflow or back up, as close as possible to the location where the waste water occurs. It must also be in the open, frostfree and easily accessible for cleaning vehicles. The drains and pipes must be able to drain until empty.
- The base of the excavation must be level. If no suitable soil is available, create a 10 cm thick bed of sand and fine gravel and compress. If the ground is non-load bearing, make a statically measured foundation slab. Put a 10 cm compensation layer of sand onto the foundation slab.
- Take thickness of foundation and compensation layer into consideration during height measurements. Pay attention to height information in installation drawing.
- 5. The tanks must be installed in a level position.

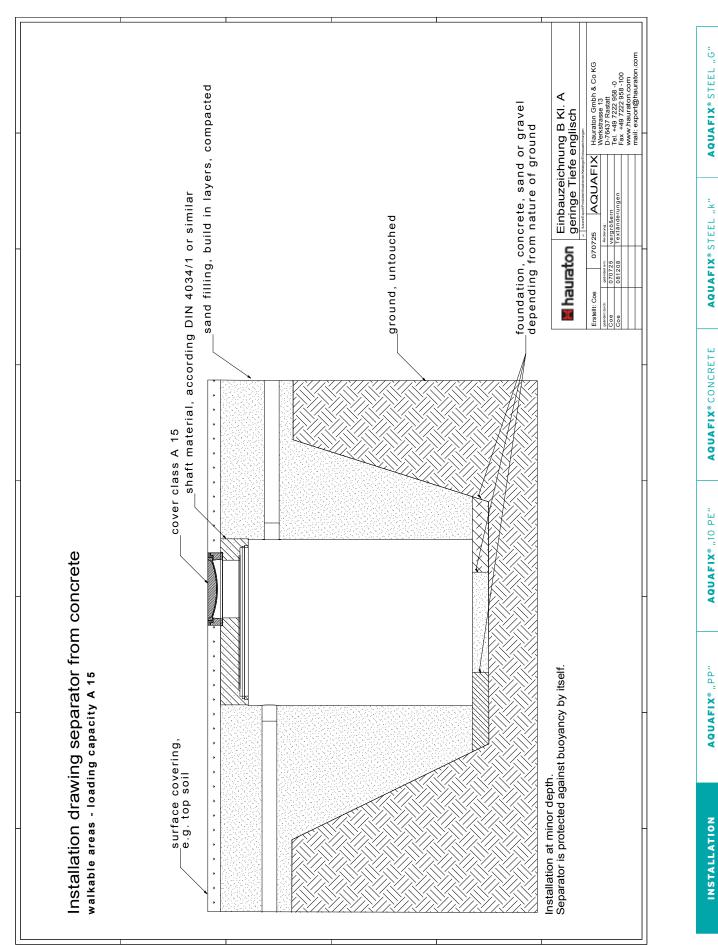
Do not confuse the inlet with the outlet! Adhere to order of tanks! Maintain slope! Recommended total incline of system 2 - 5%!

6. Install system so that top edge is higher than final admission point.

- 7. Manual transport on side can be done easily with steel bars which can be put through the holes of the outer stop rings.
- 8. Arrange maintenance shaft at outlet side such that all separator areas are accessible and the floats and the coalescence insert can be removed if necessary.
- Ensure that the seals are correctly seated! Please use an adequate quantity of antiseize agent. It is advisable to offset the relative positions of the shaft elements in mortar or using hose bearings.
- 10. The distance between the individual elements should be 60 100 cm.
- 11. Ensure that pipelines are connected without leaks.
- 12. Fill all tanks with fresh water before filling and check for leaks. This leak test is mandatory!
- 13. Do not alter positions of tanks and lines when filling and compressing with sand. Please pay attention to the provided drawing.
- 14. When all tanks, covering plates, tops and covers and connecting pipes have been correctly located, **the system must be cleaned.**
- 15. When filling light liquid separators with fresh water, hold float in raised position until it can float independently.

Report start-up to the responsible authority. Pay attention to accident prevention regulations during installation!

INSTALLATION DRAWING

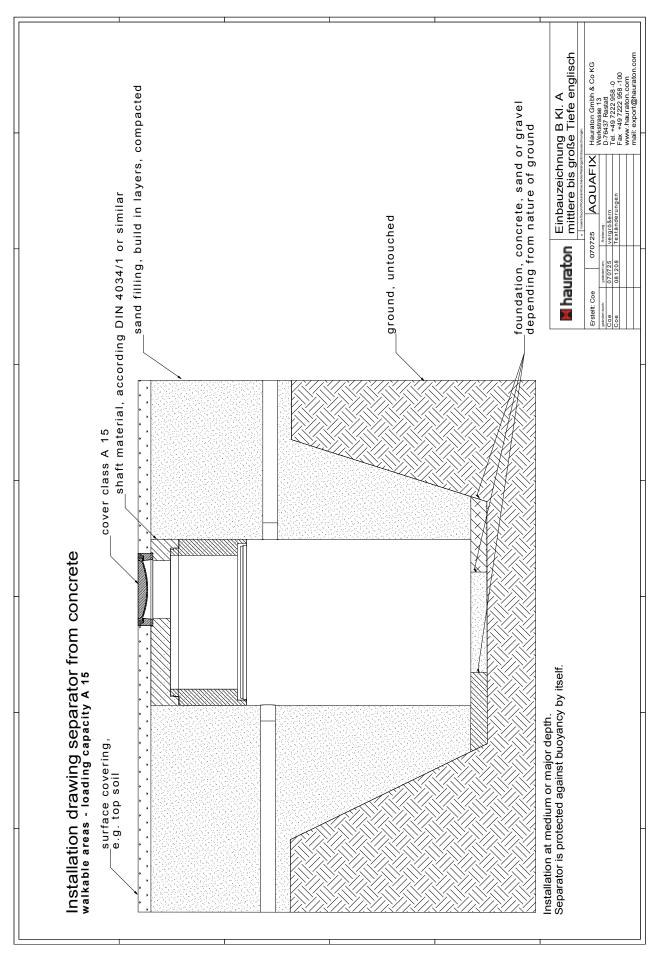


INSTRUCTIONS INSTRUCTIONS

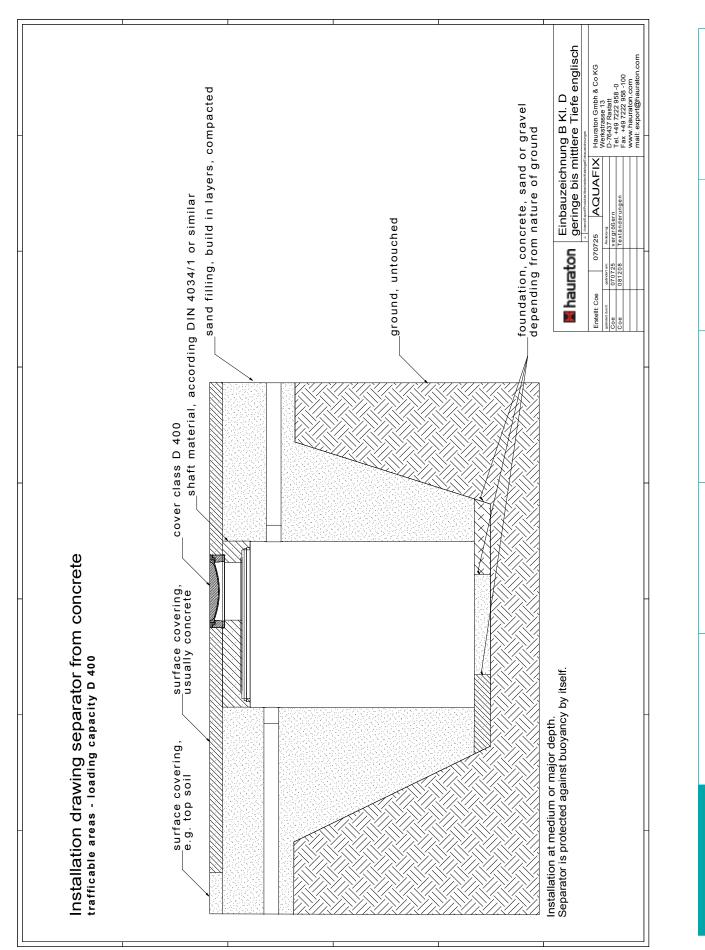
AQUAFIX® STEEL "G"







INSTALLATION DRAWING



AQUAFIX® "10 PE"

AQUAFIX[®] "PP"

AQUAFIX® STEEL "G"

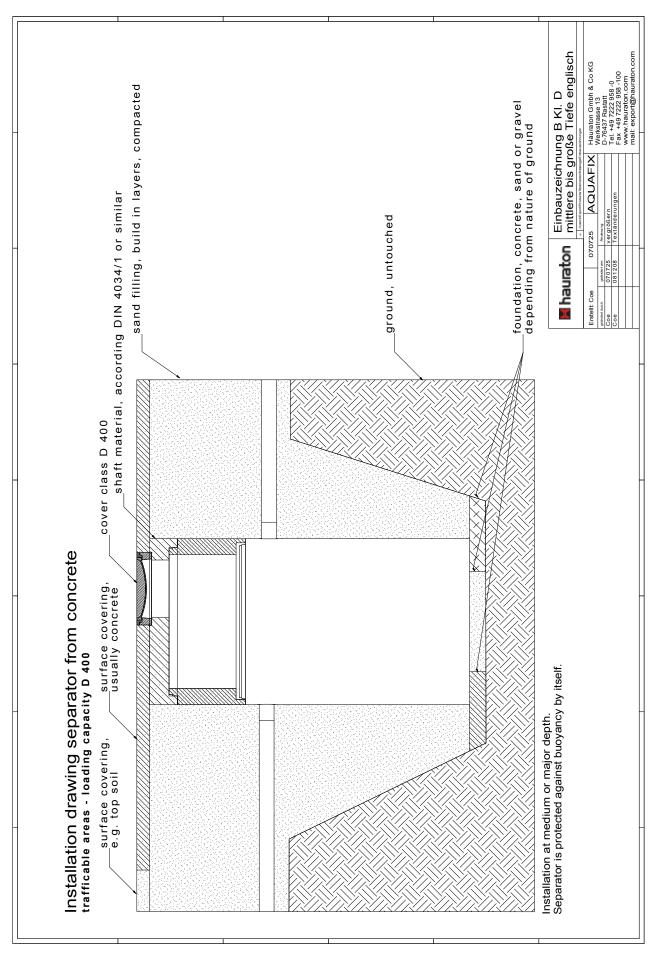
AQUAFIX® STEEL "K"

AQUAFIX[®] CONCRETE

INSTRUCTIONS INSTRUCTIONS







ADUAFIX® STFFI G"	
AQUAFIX® STFFI k"	
A DUA FIX® CONCRETE	
AQUAFIX® 10 PF"	
AQUAFIX® pp"	
INSTALLATION	INSTRUCTIONS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

OPERATION AND MAINTENANCE OF AQUAFIX® LIGHT LIQUID SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

□ Before start-up

- Clean the entire system and remove mortar residue, soil etc. Remove lock during this operation and (if separator is a coalescence separator) remove the coalescence insert and replace them again afterwards.
- 2. Fill sludge trap and separator with fresh water. Attention! Always hold lock in raised position when filling, or replace when filling is complete.
- 3. Re-check tightness of joints in the system.

\Box Operation

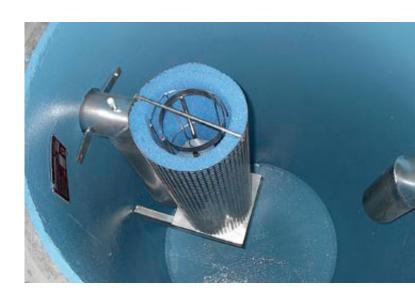
As well as the maintenance guide, the following regulations must be observed for the entire system:

- DIN 1986 (Land drainage systems)
- DIN 1999 (Light liquid separating systems)
- EN 858 (Light liquid separating systems)
- Local drainage statutes and other regulations

Only waste water that does not affect the intended operation of the separator must be led to the separating system. Emulsions and solvents (cold cleaners, drilling and cutting oils, water-soluble hydrocarbons etc.) must be kept away from the separating system and disposed off as special waste. Rainwater from surfaces for which the separating system is not intended and domestic waste water must not be led to the separating system. Do not remove coalescence insert during operation!

□ Disposal

Separating systems must be emptied at least every six months unless otherwise stipulated by the monitoring authority, but no later than when 85% of the storage capacity has been reached. The cleaning intervals must be shorter if the storage capacity of the separator or the sludge trap is exceeded. The operation of the equipment must not be interrupted.



The separated material must only be emptied, cleaned and taken away by authorised disposal companies.

The oil layer and water beneath it must be extracted first, preferably into separate tanks. The float and the lock must be cleaned and the operation thereof checked every time the equipment is emptied. Remove coalescence insert, clean the sludge trap, give damaged coalescence material to the disposal company and replace with new material. Re-insert the coalescence insert.

Every time that the equipment is emptied and cleaned, refill system with fresh water. Hold lock open by hand when doing this or insert it again afterwards. Use mobile ladders when climbing into the system. Extract vapour/ air mixture beforehand.

\Box Servicing

The separator system must be serviced at least every 6 months. The system may need to be emptied to do this. Carefully check operation of all parts of the system and inspect for damage. Then fill separator and sludge trap with fresh water, Hold lock open by hand or insert afterwards. **Pay attention to accident prevention regulations!**

OPERATION AND MAINTENANCE OF AQUAFIX® LIGHT LIQUID SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

□ Before start-up

Clean the entire system and remove mortar residue, soil etc. Fill entire system with fresh water. Check joints of system for leaks.

\Box Operation

As well as the maintenance guide, the following regulations must be observed for the entire system:

- DIN 1986 (Land drainage systems)
- DIN 1999 (Light liquid separating systems)
- EN 858 (Light liquid separating systems)

Local drainage statutes and other regulations
 Only waste water that does not affect the intended
 operation of the separator must be led to the separating
 system. Particularly domestic waste water and mineral
 light liquids must be kept away from the separating system,
 nor must rainwater be led to the separating system.

Disposal

- The separating systems must be cleaned at least every 14 days more frequently if necessary. The cleaning intervals must be shorter if the storage capacity of the separator or the sludge trap is exceeded. The operation of the equipment must not be interrupted.
- 2. The separated material must only be emptied, cleaned and taken away by authorised disposal companies.
- 3. Every time that the equipment is emptied and cleaned, refill system with fresh water.
- 4. Use mobile ladders when climbing into the system. Extract vapour/air mixture beforehand. Pay attention to accident prevention regulations!

□ Servicing

The separator system must be serviced at least every 14 days. The system must be emptied and cleaned to do this. Carefully check operation of all parts of the system and inspect for damage. Then fill the system with fresh water. Pay attention to accident prevention regulations!





AQUAFIX[®]SEPARATORS

SERIES MADE OF CONCRETE SOLID CONSTRUCTIONS FOR HEAVY DUTY.





AT A GLANCE:

- High quality concrete
- Strong wall thickness
- Conforms to standards even down to the details

SERIES MADE OF CONCRETE SOLID CONSTRUCTIONS FOR HEAVY DUTY.

FEATURES

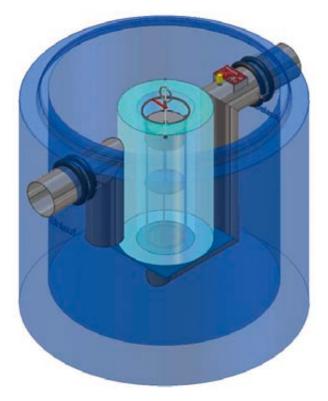
- high grade reinforced concretec C35/45 in accordance with Eurocode EC 206, DIN 1045 and 4281, wall thickness at least 120 mm
- coating consisting of three layers of epoxy resin resistant to light liquids and fatty acids
- conform to European standards EN 858 and 1825

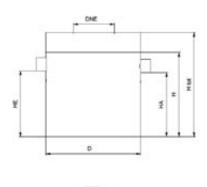


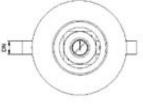


AQUAFIX[®]Separators from concrete - Series C

AQUAFIX® - K Coalescence separator







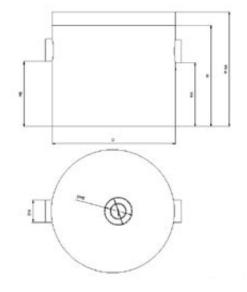
	Length mm	Width mm	Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight mm	storage capa- city l	ltem No.
K 10	1240	1240	1315	10	1000	-	530	150	845	820	625	-	1500,0	162	103100C
K 15	1240	1240	1515	15	1000	-	930	200	1000	975	625	-	1700,0	246	103150C
K 20	1840	1840	1565	20	1600	-	1450	200	1000	975	625	-	2650,0	332	103200C
K 30	2340	2340	1865	30	2100	-	3220	250	1200	1175	800	-	5000,0	628	103300C
K 40	2740	2740	2320	40	2500	-	7480	250	1675	1650	800	-	6800,0	996	103400C
K 50	2740	2740	2520	50	2500	-	8460	250	1900	1875	800	-	7300,0	986	103500C



AQUAFIX® - K2BP Coalescence separator with double-bypass



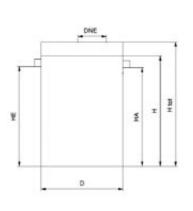
	Length mm		Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight : mm	storage capa- city l	ltem No.
K2BP 20	2740	2740	2320	200	2500	-	5449	400	1300	1275	625	-	6800,0	1227	174020C
K2BP 40	2740	2740	2520	400	2500	-	6185	500	1450	1425	625	-	7300,0	1227	174040C
K2BP 60	2740	2740	2820	600	2500	-	6921	600	1600	1575	625	-	7750,0	1227	174060C

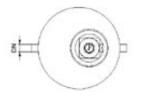


AQUAFIX® STEEL "G"

AQUAFIX[®]Separators from concrete - Series C

AQUAFIX® - SK Coalescence separator with sludge trap



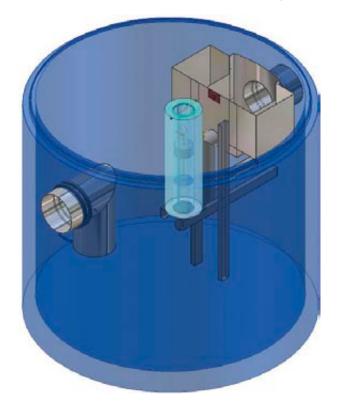




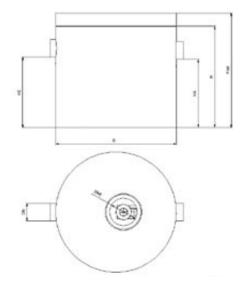
_	Length mm	Width mm	Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outlet mm		HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight mm	storage capa- city l	No.
SK 04/0650 H	1240	1240	2115	4	1000	650	575	150	1750	1725	625	-	2300,0	157	176043C
SK 06-10/2500 H	1840	1840	2665	10	1600	2385	1166	150	2200	2175	625	-	4200,0	353	176105C
SK 06-10/5000 AIO	2740	2740	2420	10	2500	4906	3557	150	1895	1870	625	-	7050,0	1011	176107C
SK15/3000 AIO	2740	2740	2420	15	2500	2944	5029	200	1875	1800	625	-	7050,0	1011	176155C
SK 15/5000 AIO	2740	2740	2720	15	2500	4906	4538	200	2125	2100	625	-	7750,0	1011	176157C
SK 20/4000 AIO	2740	2740	2720	20	2500	3925	5520	200	2125	2100	625	-	7750,0	1070	176204C
SK 30/3000 AIO	2740	2740	2420	30	2500	2944	5029	250	1800	1775	800	-	7050,0	1079	176305C
SK 40/4000 AIO	2740	2740	2920	40	2500	3925	6746	250	2350	2325	800	-	8250,0	1104	176406C
SK 50/3000 AIO	2740	2740	2920	50	2500	2944	7727	250	2350	2325	800	-	8250,0	1128	176505C



AQUAFIX® - SK2BP Coalescence separator with sludge trap and double-bypass



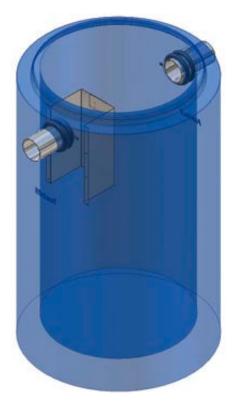
	Length mm	Width mm	-	max. Flow l/s	rator	trap capa-		outlet	inlet	outlet	DNE man- hole 1	man-	mm	storage capa- city l	ltem No.
SK2BP 10/1000	2740	2740	2620	100	2500	3313	3595	400	1600	1550	625	-	7300,0	1011	175010C
SK2BP 15/1500	2740	2740	2820	150	2500	3313	4541	400	1800	1750	625	-	7750,0	1227	175015C



CIVILS

AQUAFIX[®]Separators from concrete - Series C

AQUAFIX® - S Sludge trap



_	Length mm	Width mm	Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	rator	DN in-/ outlet mm	HE H inlet mm	HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight mm	storage capa- city l	ltem No.
S 0650/03	1240	1240	1715	-	1000	650	-	100	1275	1225	625	-	1900,0	-	101043C
S 1300/03	1840	1840	1165	-	1600	1300	-	100	1350	1300	625	-	2300,0	-	101064C
S 10/02500	1840	1840	1865	-	1600	2500	-	150	1650	1625	625	-	3400,0	-	101105C
S 3500/10	1840	1840	2365	-	1600	3500	-	150	1200	1150	625	-	4200,0	-	101106C
S 5000/10	2340	2340	1965	-	2100	5000	-	150	1700	1650	625	-	4900,0	-	101107C
S 7500/10	2740	2740	2320	-	2500	7500	-	150	1870	1820	625	-	6750,0	-	101108C
S 10000/10	2740	2740	2920	-	2500	10000	-	150	2500	2450	625	-	7250,0	-	101109C
S 20/02500	1840	1840	1865	-	1600	2500	-	200	1600	1575	625	-	7700,0	-	101205C
S 5000/20	2340	2340	1965	-	2100	5000	-	200	1650	1600	625	-	4900,0	-	101207C
S 8000/20	2740	2740	2520	-	2500	8000	-	200	1900	1850	625	-	6750,0	-	101208C
S 10000/20	2740	2740	2920	-	2500	10000	-	200	2400	2350	625	-	7250,0	-	101209C
S 5000/30	2340	2340	1965	-	2100	5000	-	250	1600	1550	625	-	4900,0	-	101307C
S 7500/30	2740	2740	2320	-	2500	7500	-	250	1770	1720	625	-	6750,0	-	101308C
S 10000/30	2740	2740	2920	-	2500	10000	-	250	2400	2350	625	-	7250,0	-	101309C



AQUAFIX® STEEL "G"
AQUAFIX® STEEL "k"
AQUAFIX ® CONCRETE
AQUAFIX ® "10 PE"
AQUAFIX® "PP"

INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

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- The base of the excavation must be level. If no suitable soil is available, create a 10 cm thick bed of sand and fine gravel and compress. If the ground is non-load bearing, make a statically measured foundation slab. Put a 10 cm compensation layer of sand onto the foundation slab.
- Take thickness of foundation and compensation layer into consideration during height measurements. Pay attention to height information in installation drawing.
- 5. The tanks must be installed in a level position.

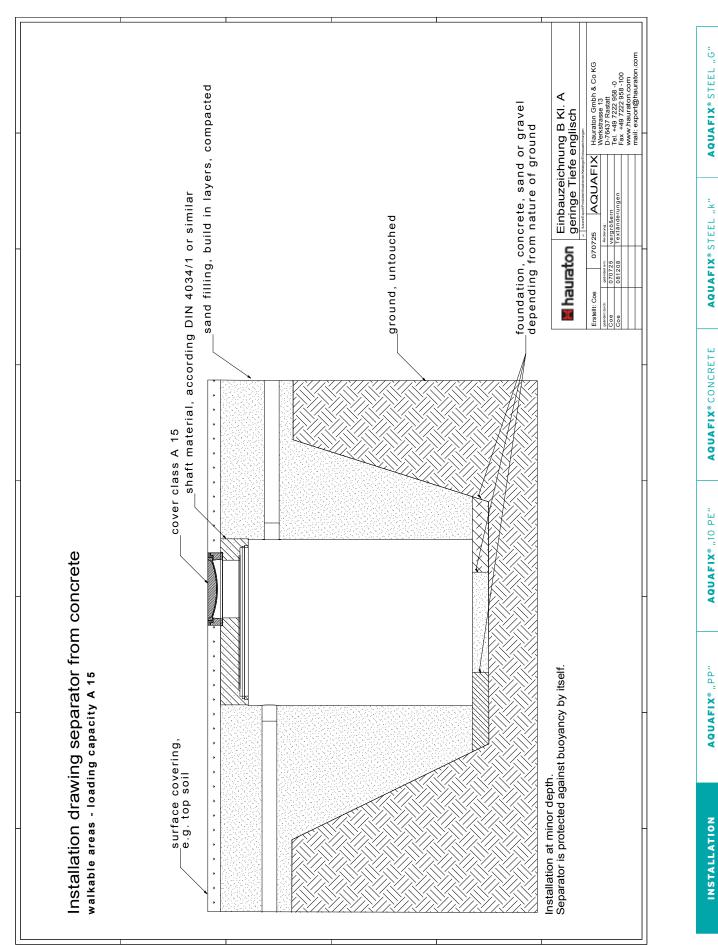
Do not confuse the inlet with the outlet! Adhere to order of tanks! Maintain slope! Recommended total incline of system 2 - 5%!

6. Install system so that top edge is higher than final admission point.

- 7. Manual transport on side can be done easily with steel bars which can be put through the holes of the outer stop rings.
- 8. Arrange maintenance shaft at outlet side such that all separator areas are accessible and the floats and the coalescence insert can be removed if necessary.
- Ensure that the seals are correctly seated! Please use an adequate quantity of antiseize agent. It is advisable to offset the relative positions of the shaft elements in mortar or using hose bearings.
- 10. The distance between the individual elements should be 60 100 cm.
- 11. Ensure that pipelines are connected without leaks.
- 12. Fill all tanks with fresh water before filling and check for leaks. This leak test is mandatory!
- 13. Do not alter positions of tanks and lines when filling and compressing with sand. Please pay attention to the provided drawing.
- 14. When all tanks, covering plates, tops and covers and connecting pipes have been correctly located, **the system must be cleaned.**
- 15. When filling light liquid separators with fresh water, hold float in raised position until it can float independently.

Report start-up to the responsible authority. Pay attention to accident prevention regulations during installation!

INSTALLATION DRAWING

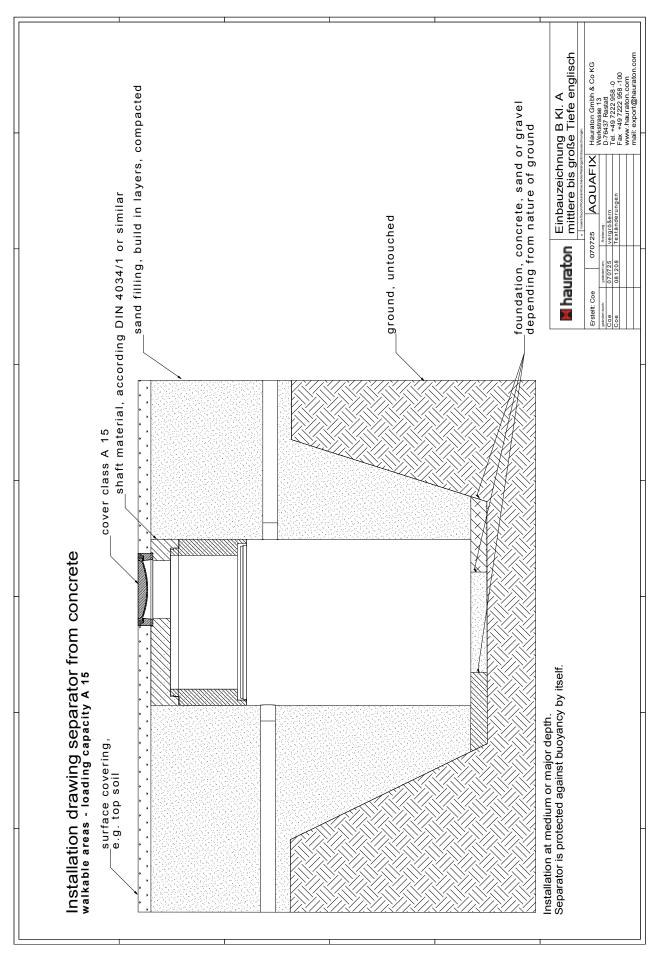


INSTRUCTIONS INSTRUCTIONS

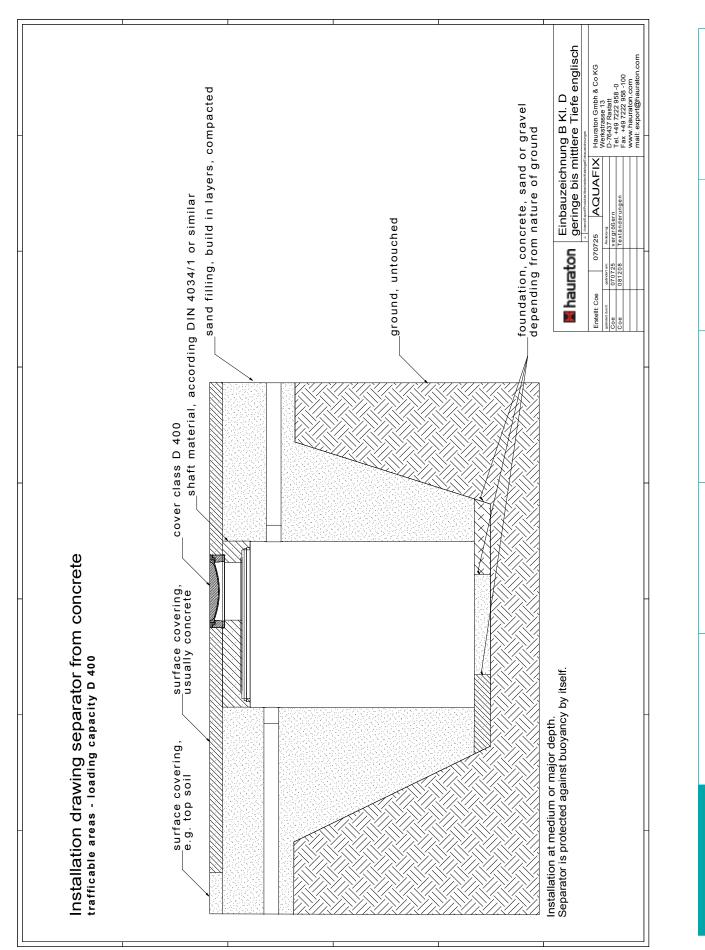
AQUAFIX® STEEL "G"







INSTALLATION DRAWING



AQUAFIX® "10 PE"

AQUAFIX[®] "PP"

AQUAFIX® STEEL "G"

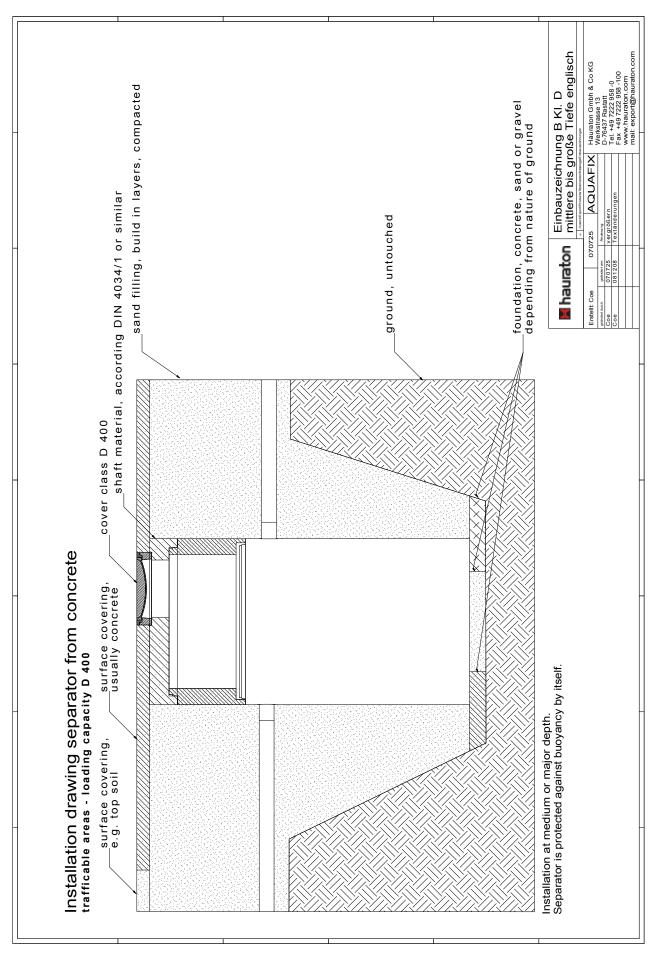
AQUAFIX® STEEL "K"

AQUAFIX[®] CONCRETE

INSTRUCTIONS INSTRUCTIONS







AQUAFIX® STEEL "G"
AQUAFIX® STEEL "k"
AQUAFIX® CONCRETE
AQUAFIX® "10 PE"
AQUAFIX®"PP"
INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

OPERATION AND MAINTENANCE OF AQUAFIX® LIGHT LIQUID SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

□ Before start-up

- Clean the entire system and remove mortar residue, soil etc. Remove lock during this operation and (if separator is a coalescence separator) remove the coalescence insert and replace them again afterwards.
- 2. Fill sludge trap and separator with fresh water. Attention! Always hold lock in raised position when filling, or replace when filling is complete.
- 3. Re-check tightness of joints in the system.

\Box Operation

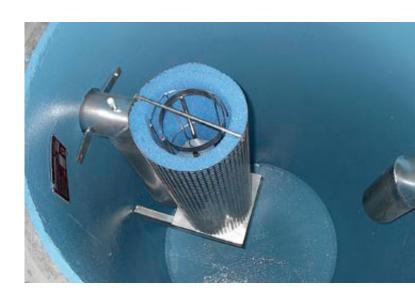
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The oil layer and water beneath it must be extracted first, preferably into separate tanks. The float and the lock must be cleaned and the operation thereof checked every time the equipment is emptied. Remove coalescence insert, clean the sludge trap, give damaged coalescence material to the disposal company and replace with new material. Re-insert the coalescence insert.

Every time that the equipment is emptied and cleaned, refill system with fresh water. Hold lock open by hand when doing this or insert it again afterwards. Use mobile ladders when climbing into the system. Extract vapour/ air mixture beforehand.

\Box Servicing

The separator system must be serviced at least every 6 months. The system may need to be emptied to do this. Carefully check operation of all parts of the system and inspect for damage. Then fill separator and sludge trap with fresh water, Hold lock open by hand or insert afterwards. **Pay attention to accident prevention regulations!**

OPERATION AND MAINTENANCE OF AQUAFIX® LIGHT LIQUID SEPARATORS SERIES MADE OF CONCRETE (H/P/C)

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□ Servicing

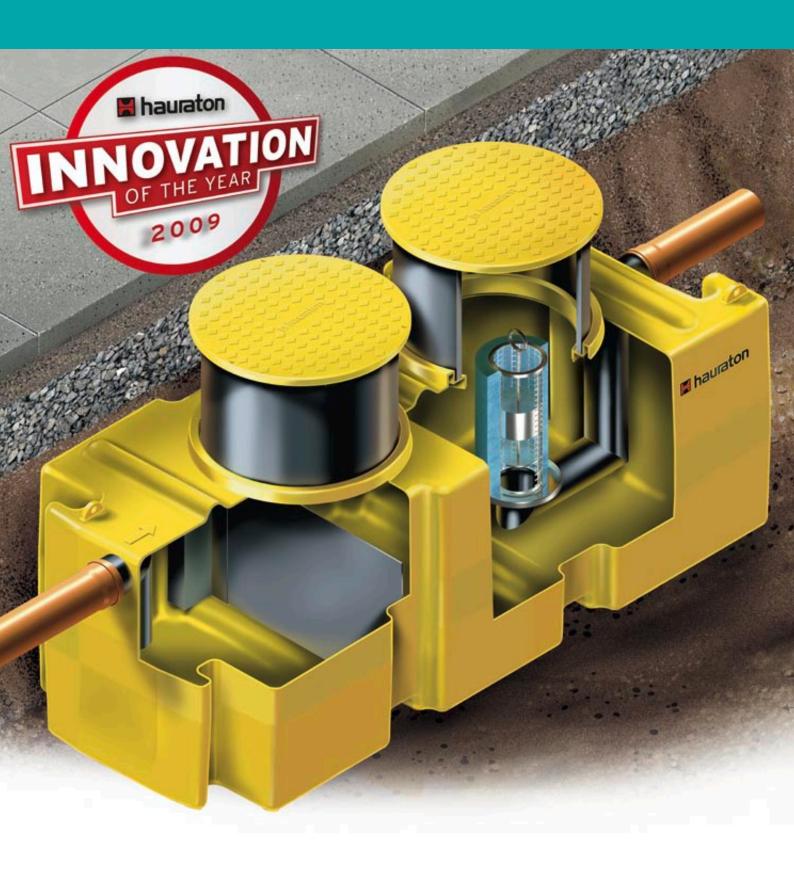
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AQUAFIX[®]SEPARATORS

SERIES "10 PE" MADE OF POLYETHYLENE LIGHT SOLUTIONS FOR STRONG REQUIREMENTS.





AT A GLANCE:

- ☑ 10 mm wall thickness for highest security
- optimised construction after FE-analysis
- pure, high quality raw material is used in the optimised production process

AQUAFIX®SEPARATORS

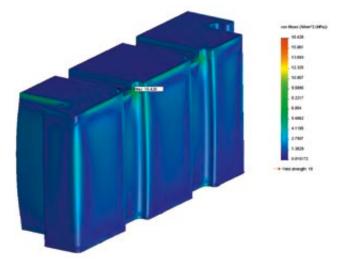
SERIES "10 PE" MADE OF POLYETHYLENE LIGHT SOLUTIONS FOR STRONG REQUIREMENTS.

FEATURES

- 10 mm wall thickness
- stop rings to handle
- computer aided design
- according standards EN 858 or EN 1825
- wide openings
- for light liquid separators:
 - automatic closing device easy to remove
 - colescence cell easy to remove
 - sample taking device can be integrated

EXTENSIONS

Extension pipes in every length can be supplied. Covers in class A or D available.



The construction of AQUAFIX 10 PE separators was done according detailed FE analysis. The combination of high quality material, optimised production process and at least 10 mm wall thickness quarantuees highest stability.









AQUAFIX[®]Separators from Polyethylene - Series P

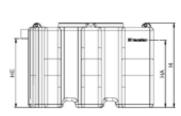
AQUAFIX®10 PE - KPE Coalescence separator



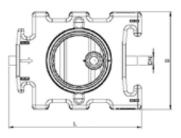


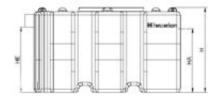
KPE 06

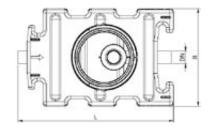


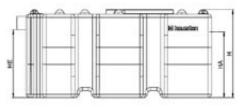


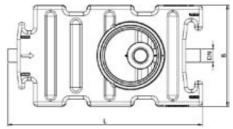






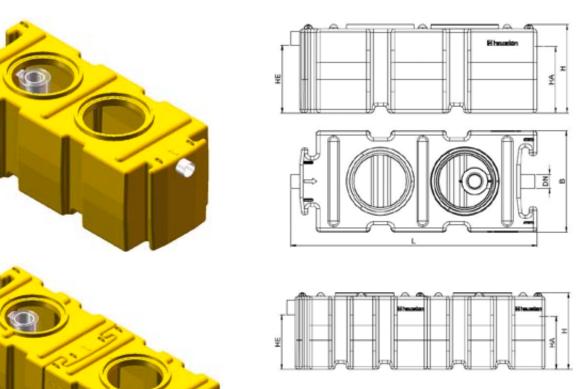


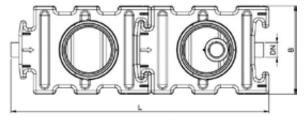




	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
KPE 03	1635	1200	1040	3	-	-
KPE 06	1810	1200	1040	6	-	-
KPE 08	2310	1200	1040	8	-	-
KPE 10	2910	1200	1040	10	-	-
KPE 15	3515	1200	1040	15	-	-







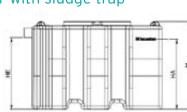


separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
1270	110	850	830	700	-	107,0	153	83503P
1435	160	800	780	700	-	149,0	184	83506P
1810	160	800	780	700	=	167,0	232	83508P
2371	160	800	780	700	700	182,0	304	83510P
2650	200	740	720	700	700	241,0	368	83515P

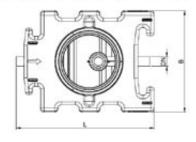
AQUAFIX[®]Separators from Polyethylene - Series P

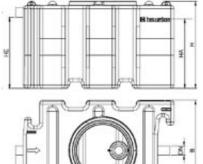
AQUAFIX®10 PE - SKPE Coalescence separator with sludge trap



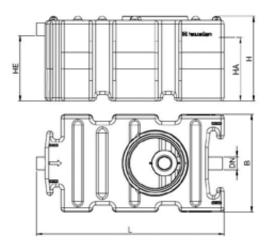






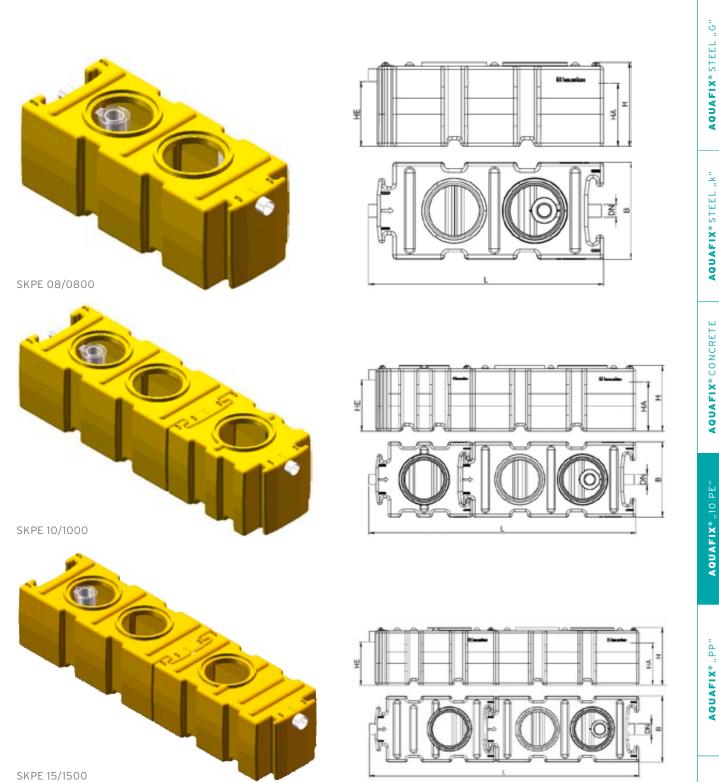






	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
SKPE 01,5/0150	1635	1200	1040	1	-	150
SKPE 03/0300	1910	1200	1040	3	-	300
SKPE 06/0600	2310	1200	1040	6	-	600
SKPE 08/0800	2910	1200	1040	8	-	800
SKPE 10/1000	4255	1200	1040	10	-	1000
SKPE 15/1500	4915	1200	1040	15	-	1500





separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
1120	110	850	830	700	-	116,0	153	84001P
1227	110	850	830	700	-	128,0	184	84003P
1210	160	800	780	700	-	176,0	232	84006P
1571	160	800	780	700	700	188,0	304	84008P
2565	160	810	780	700	700	280,0	457	84010P
2359	200	750	720	700	700	301,0	536	84015P

haurator

INNOVATION

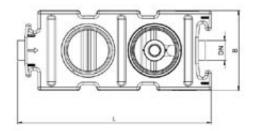
AQUAFIX[®]Separators from Polyethylene - Series P

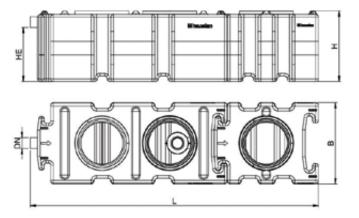
AQUAFIX[®]10 PE - SKBPPE Coalescence separator with sludge trap and bypass





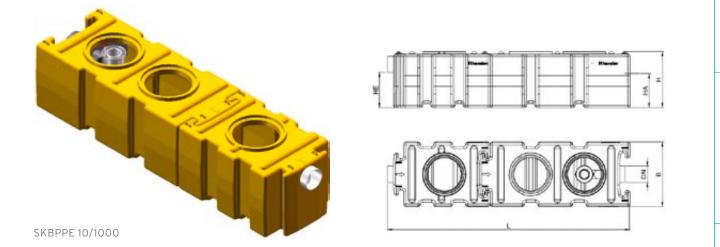
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	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
SKBPPE 06/0600	2910	1200	1040	30	-	600
SKBPPE 08/0800	4255	1200	1040	40	-	800
SKBPPE 10/1000	4505	1200	1040	50	-	1000



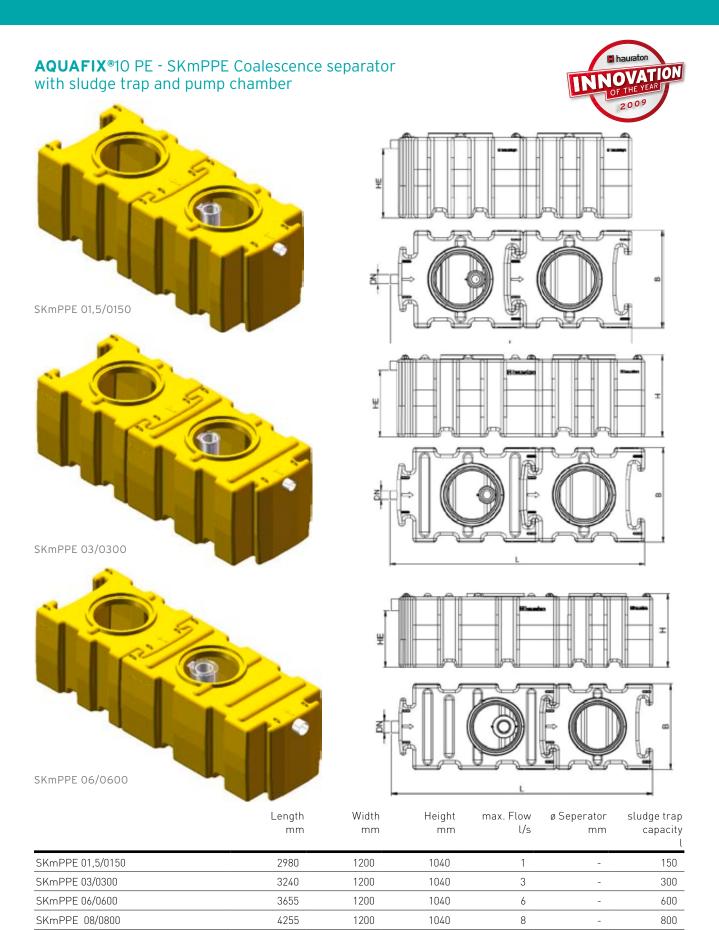


separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
1315	300	633	623	700	700	203,0	304	86606P
2079	300	643	623	700	700	285,0	304	86608P
2074	300	643	623	700	700	297,0	488	86610P

SKmPPE 10/1000

SKmPPE 15/1500

AQUAFIX[®]Separators from Polyethylene - Series P



1040

1040

1200

1200

5600

6260

10

15

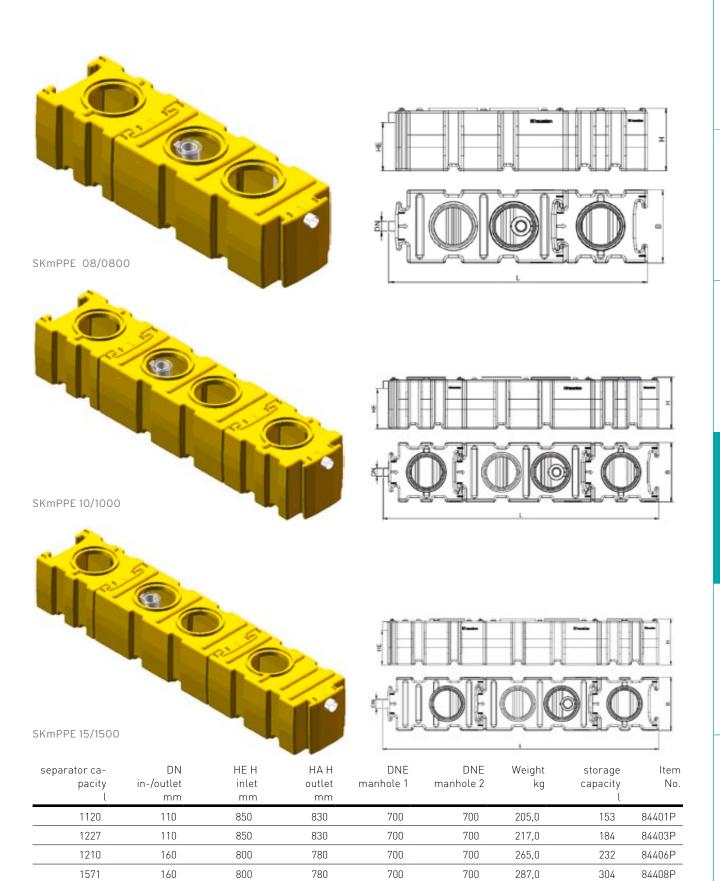
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1000

1500





2565

2359

160

200

810

750

780

720

700

700

700

700

369,0

390,0

457

536

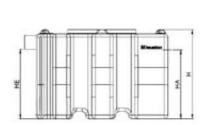
84410P

84415P

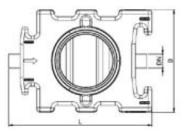
AQUAFIX[®]Separators from Polyethylene - Series P

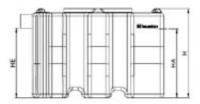
AQUAFIX®10 PE - SPE Sludge trap

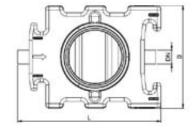






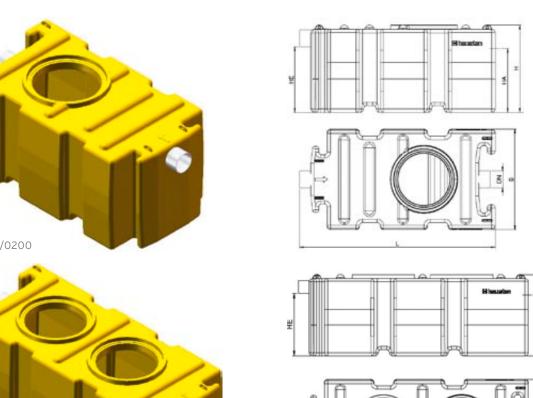


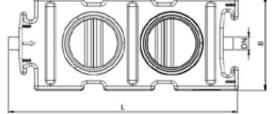




	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
SPE 0800/0160	1675	1200	1040	-	-	1224
SPE 1000/0160	1675	1200	1040	-	-	1224
SPE 1500/0200	2335	1200	1040	-	-	1717
SPE 2000/0200	2935	1200	1040	-	-	2250









separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
-	160	810	800	700	-	92,0	-	84308P
-	160	810	800	700	-	92,0	-	84310P
-	200	750	740	700	-	122,0	-	84315P
-	200	760	740	700	700	145,0	-	84320P

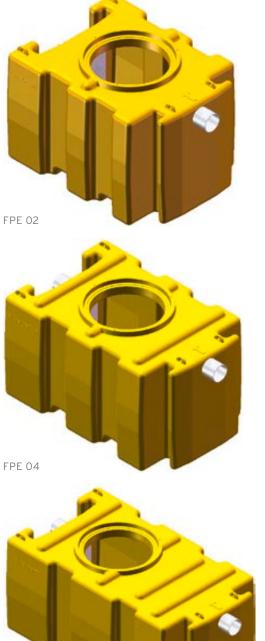
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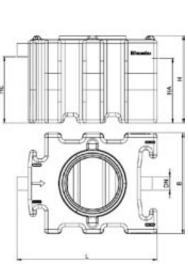
INNOVATION

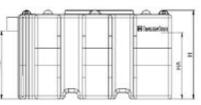
AQUAFIX[®]Separators from Polyethylene - Series P

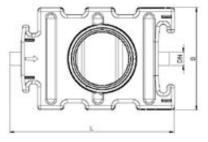
AQUAFIX®10 PE - FPE Grease separator

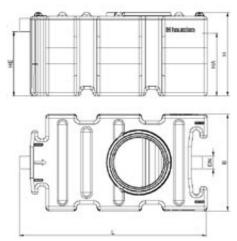






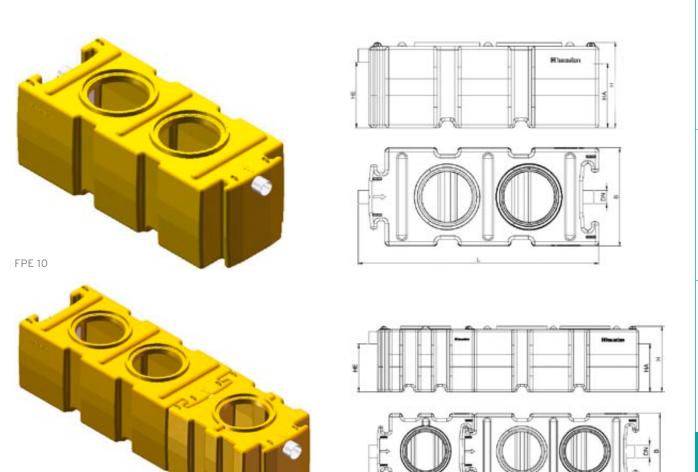






	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
FPE 02	1675	1200	1040	2	-	-
FPE 04	1925	1200	1040	4	-	-
FPE 07	2330	1200	1040	7	-	-
FPE 10	2935	1200	1040	10	-	-
FPE 15	4280	1200	1040	15	-	-





FPE 15

separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
1178	160	790	770	700	-	95,0	153	85002P
1435	160	800	780	700	-	107,0	184	85004P
1810	160	800	780	700	700	124,0	232	85007P
2371	160	800	780	700	700	141,0	304	85010P
3382	200	760	740	700	700	238,0	457	85015P

AQUAFIX® STEEL "G"

AQUAFIX® STEEL "k"

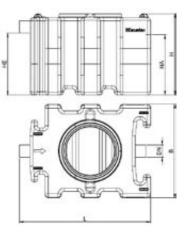
AQUAFIX® CONCRETE

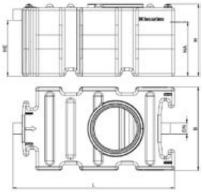
AQUAFIX[®]Separators from Polyethylene - Series P

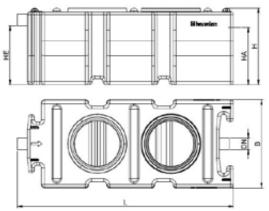
AQUAFIX®10 PE - SFPE Grease separator with sludge trap





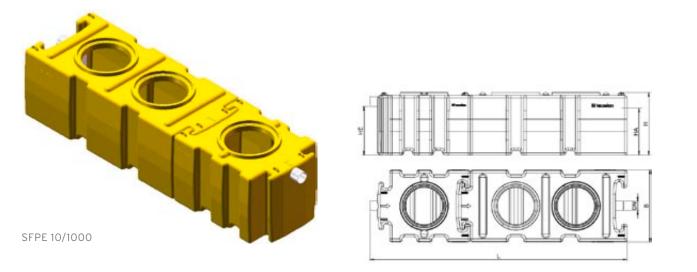






	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
SFPE 02/0200	1675	1200	1040	2	-	200
SFPE 04/0400	2335	1200	1040	4	-	400
SFPE 07/0700	2935	1200	1040	7	-	700
SFPE 10/1000	4280	1200	1040	10	-	1000





separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
993	160	800	780	700	-	103,0	153	85302P
1210	160	800	780	700	700	134,0	232	85304P
1671	160	800	780	700	700	156,0	304	85307P
2565	160	810	780	700	700	238,0	457	85310P

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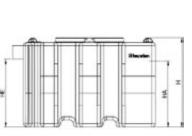
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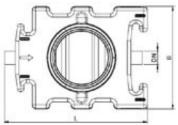
AQUAFIX[®]Separators from Polyethylene - Series P

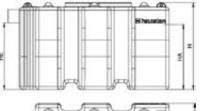
AQUAFIX®10 PE - SAPE Starch separator

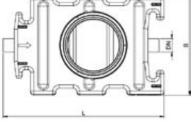


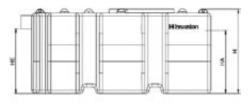
SaPE 03

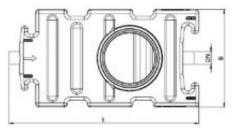






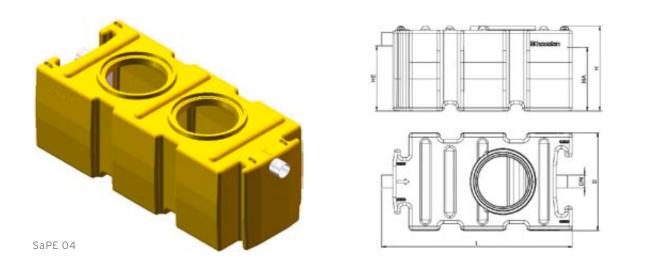






	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
SaPE 01	1675	1200	1040	1	-	-
SaPE 02	1935	1200	1040	2	-	-
SaPE 03	2335	1200	1040	3	-	-
SaPE 04	2935	1200	1040	4	-	-

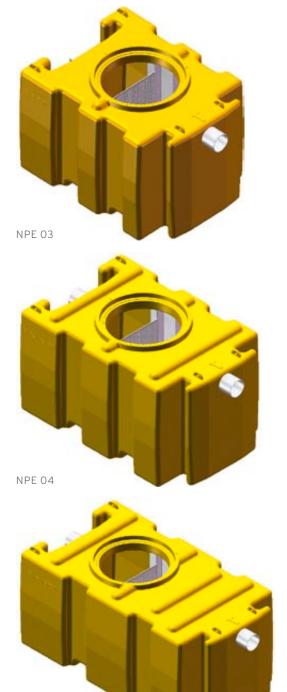




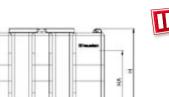
separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
1178	160	790	770	700	-	93,0	153	86201P
1435	160	800	780	700	-	102,0	184	86202P
1810	160	800	780	700	-	124,0	232	86203P
2371	160	800	780	700	700	145,0	304	86204P

AQUAFIX[®]Separators from Polyethylene - Series P

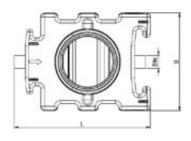
AQUAFIX®10 PE - NPE Battery acid neutraliser

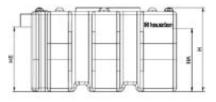


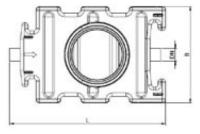
NPE 05

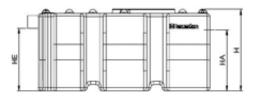


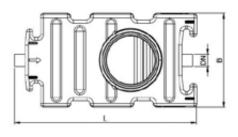






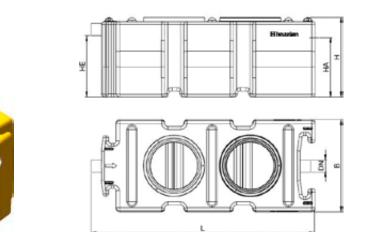


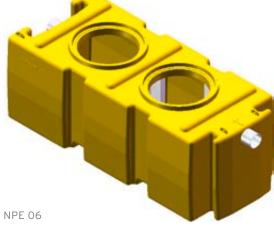




	Length mm	Width mm	Height mm	max. Flow l/s	ø Seperator mm	sludge trap capacity l
NPE 03	1675	1200	1040	3	-	-
NPE 04	1935	1200	1040	4	-	-
NPE 05	2335	1200	1040	5	-	-
NPE 06	2935	1200	1040	6	-	-







separator capacity l	DN in-/outlet mm	HE H inlet mm	HA H outlet mm	DNE manhole 1	DNE manhole 2	Weight kg	storage capacity l	ltem No.
1193	160	800	780	700	-	107,0	-	86903P
1435	160	800	780	700	-	119,0	-	86904P
 1810	160	800	780	700	-	137,0	-	86905P
2371	160	800	780	700	700	160,0	-	86906P

AQUAFIX®SEPARATORS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES "10 PE" MADE OF POLYETHYLENE

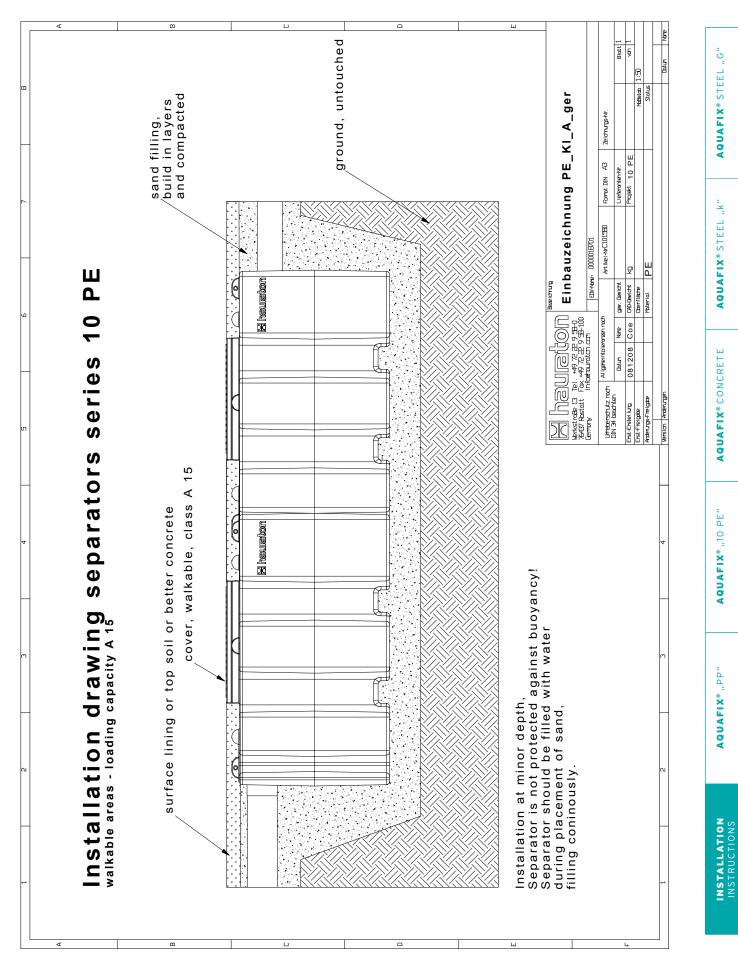
INSTALLATION ADVISES FOR AQUAFIX® SEPARATORS SERIES "10 PE" MADE OF POLYETHYLENE

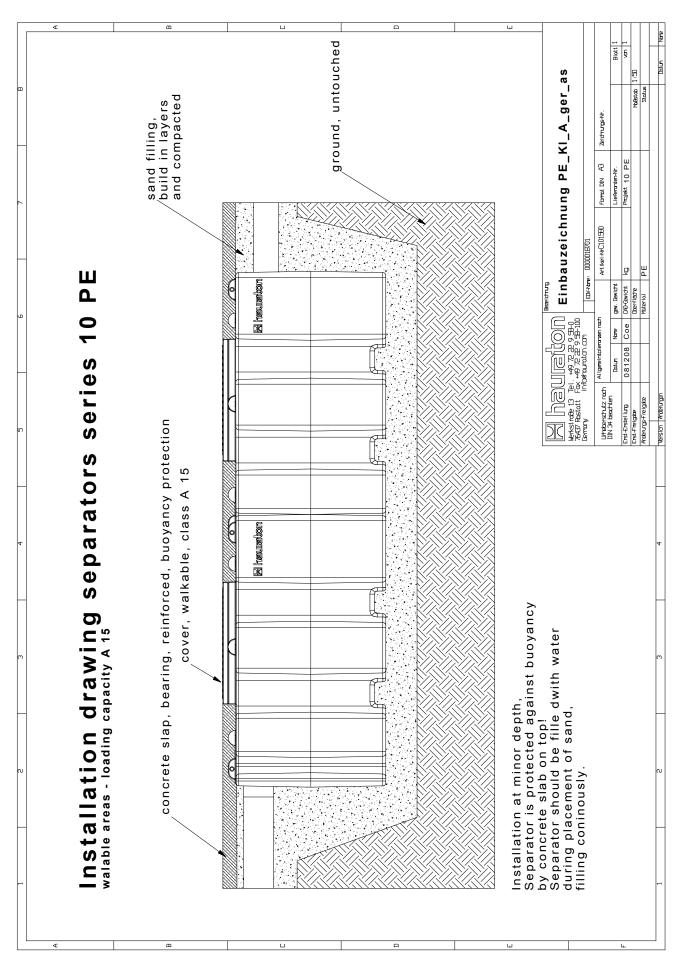
 $\hfill\square$ Installation in frequented areas.

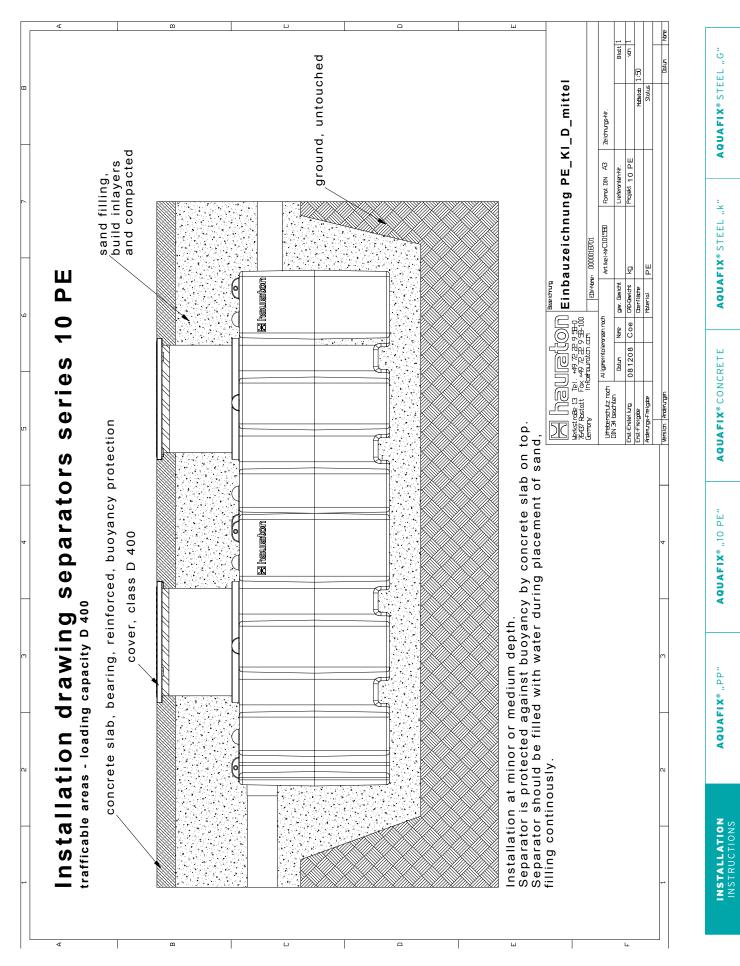
- 1. The system must be installed below ground.
- 2. Place the system on a stable base (concrete) in a horizontal position.
- 3. Connect the inlet and the outlet to the sewage system.
- Connect the height adaptation equipment if necessary, and adjust the height thereof depending on the nature of the terrain.
- 5. Fill the system with clean water, packing layers of sand around the equipment.
- 6. If the system is being installed in a frequented area a 400 kN cast iron cover must be provided. The cast iron lid is attached to the self-supporting concrete base and sealed, whereby the edge of the floor (height and reinforcement must be calculated) serves as a base.
- Manual transport on side can be done easily with steel bars which can be put through the holes of the outer stop rings.

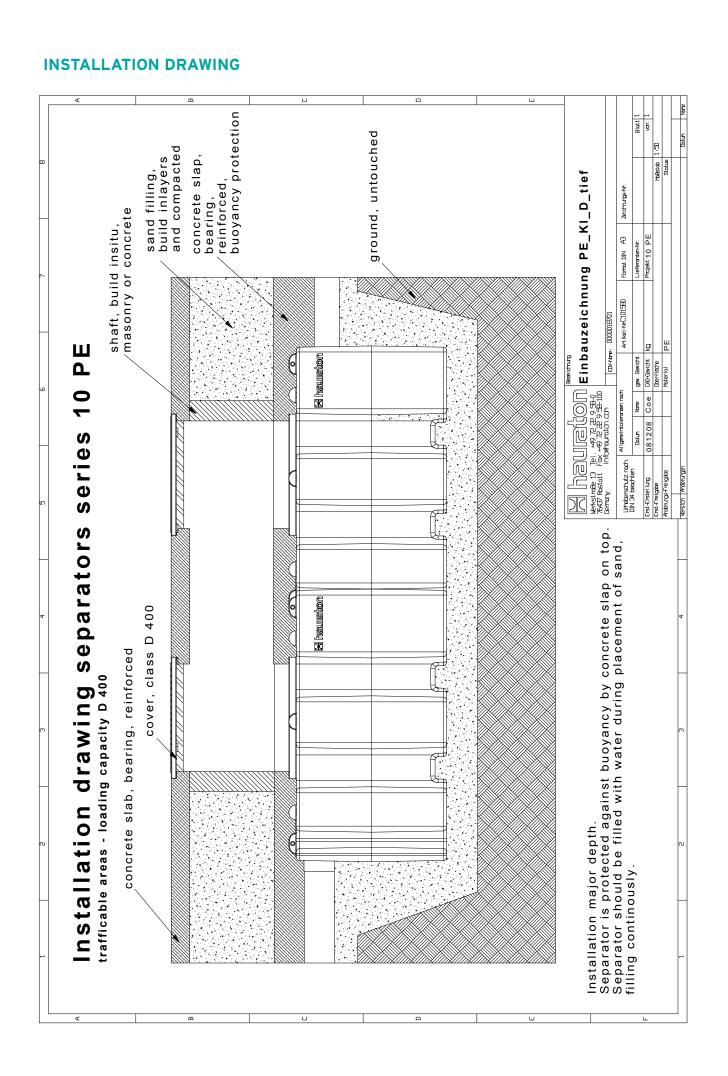
□ Installation outside frequented areas.

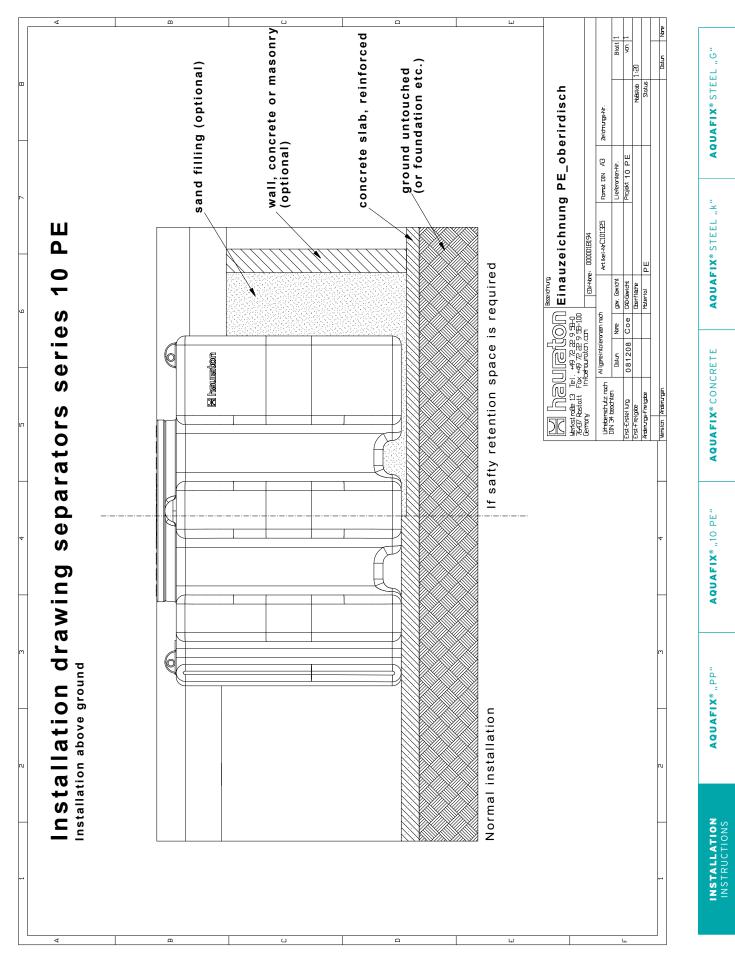
- 1. The system must be installed below ground.
- 2. Place the system on a compressed earth or concrete base in a horizontal position.
- 3. Connect the inlet and the outlet to the sewage system.
- If necessary, attach the height adapter and adjust the height thereof depending on the nature of the top edge of the ground.
- 5. Fill the system with clean water, packing layers of sand down around the system.
- 6. If several height adapters are required, a self-supporting concrete base must be made (base height and reinforcement must be calculated).
- 7. Manual transport on side can be done easily with steel bars which can be put through the holes of the outer stop rings.











AQUAFIX®SEPARATORS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES "10 PE" MADE OF POLYETHYLENE

OPERATION AND MAINTENANCE OF AQUAFIX® LIGHT LIQUID SEPARATORS SERIES "10 PE" MADE OF POLYETHYLENE

□ Before start-up

- 1. Clean entire system and remove residual mortar, soil etc.
- 2. Fill sludge trap and separator with fresh water. Please ensure that water level is same in all chambers of tank, and .ll in sequence!
- 3. Re-check joints of system for leaks.

□ Operation

Separator must be drained at least every six months, but should not be allowed to .II to more than 85% of its storage capacity. Cleaning must occur more often if the storage capacity of the separator or sludge trap is exceded. Operation must not be interrupted. All separated material must be drained, cleaned and taken away for disposal by an approved disposal company. Please empty the separator and the sludge trap of this type of system at the same time if possible. First extract the oil layer from the system and then the layer of water beneath it, into separate tanks if possible. Clean float and seal every time the system is emptied and check operation thereof.

With coalescence separators: If the coalescence material is soiled, remove coalescence material, clean above sludge trap, give damaged coalescence material to disposal company and replace with new material. Replace coalescence material. Refill system with fresh water whenever it is emptied and cleaned.

OPERATION AND MAINTENANCE OF AQUAFIX® GREASE SEPARATOR SERIES "10 PE" MADE OF POLYETHYLENE

□ Before start-up

Clean entire system and remove any residual mortar, soil etc. if necessary. Fill entire system with fresh water. Check joints of system for leaks.

□ Operation

As well as the maintenance guide, the following instructions must be followed for the entire system: EN 1825 Grease separating systems

Local water removal regulations and other instructions Only sewage that does not have a detrimental effect on the intended operation of the separator must be led to the separator. It is particularly important to prevent domestic sewage and light mineral liquids from entering the separator. Do not allow rainwater to enter the system.

□ Disposal

- Grease separators must be cleaned at least once per month, possibly more frequently. Cleaning must take place more frequently if the separator or sludge trap storage capacity is exceeded. The operation of the separator must not be affected.
- Have all separated material drained, cleaned and taken away by an approved disposal company.
- 3. Fill entire system with fresh water after it has been emptied and drained.
- 4. Use mobile ladders when entering the system. Extract vapour/air mixture beforehand. Pay attention to accident prevention regulations!

□ Maintenance

The separator must be serviced at least once per month. The system must be drained and cleaned in order to do this. Carefully check that all system components are in good working order and undamaged. Then refill system with fresh water. It is extremely important to observe the accident prevention regulations!

AQUAFIX[®]SEPARATORS SERIES "PP" MADE OF POLYPROPYLENE ONE SYSTEM FOR ALL CASES.





AT A GLANCE:

- ☑ 6 to 12 mm wall thickness
- ☑ light --> installation on site is possible
- without crane
- ☑ high stability (self standing construction)

AQUAFIX®SEPARATORS

SERIES "PP" MADE OF POLYPROPYLENE ONE SYSTEM FOR ALL CASES.

FEATURES

- 6 to 12 mm wall thickness
- stop rings to handle in horizontal und vertical position
- buoyancy protection
- according standards EN 858 or EN 1825
- wide openings
- for light liquid separators:
 - automatic closing device easy to remove
 - colescence cell easy to remove
- sample taking device can be integrated

EXTENSIONS

Extension 500 mm included, adjustment rings 500 mm can be supplied. Covers in class A or D available.



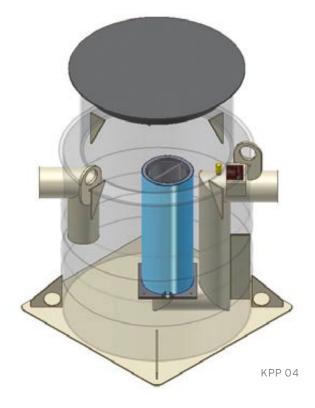






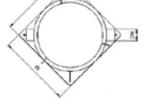
AQUAFIX[®]Separators from Polypropylene - Series H

AQUAFIX® - KPP Coalescence separator



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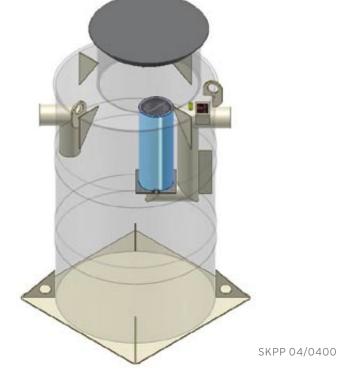
ONE



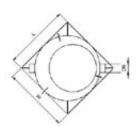
	Length mm	Width mm	Height mm	max. ø Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l			outlet		DNE man- hole 2	Weight kg	storage capa- city l	No.
KPP 04	700	700	1044	4	588	-	191	100	706	681	600	-	30,0	57	283504
KPP 06	850	850	1500	6	788	-	339	150	706	681	800	-	57,0	101	283506
KPP 10	1000	1000	1496	10	938	-	478	150	702	677	800	-	67,0	142	283510
KPP 15	1240	1240	1749	15	1174	-	1140	200	853	828	800	-	144,0	226	283515
KPP 20	1500	1500	1749	20	1414	-	1325	200	853	828	800	-	161,0	321	283520



AQUAFIX® - SKPP Coalescence separator with sludge trap

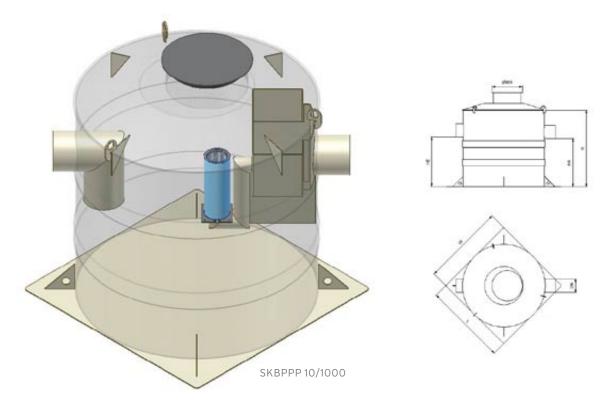


	Length mm	Width mm	5	max. Flow l/s	ø Sepe- rator mm	5	rator		HE H inlet mm	HA H outlet mm	DNE manho- m le 1		Weight kg	storage capa- city l	ltem No.
SKPP 04/0400	1000	1000	1840	4	938	424	478	100	1071	1046	800	-	67,0	142	284004
SKPP 06/0600	1000	1000	2345	6	938	603	478	150	1551	1526	800	-	82,0	142	284006
SKPP 06/1200	1240	1240	2480	6	1174	1211	551	150	1604	1579	800	-	120,0	226	284106
SKPP 10/1000	1240	1240	2480	10	1174	1011	751	150	1604	1579	800	-	120,0	226	284010
SKPP 10/2500	1500	1500	3074	10	1418	2500	1084	150	2198	2173	800	-	160,0	353	284110
SKPP 15/1500	1500	1500	2704	15	1414	1547	1325	200	1808	1783	800	-	230,0	353	284015
SKPP 15/3000	2000	2000	2804	15	1886	3023	2364	200	1908	1883	800	-	280,0	573	284115
SKPP 20/2000	2000	2000	2446	20	1886	2020	2364	200	1550	1525	800	-	256,0	573	284020
SKPP 20/4000	2500	2500	2654	20	2356	4026	3670	200	1758	1733	800	-	340,0	890	284120



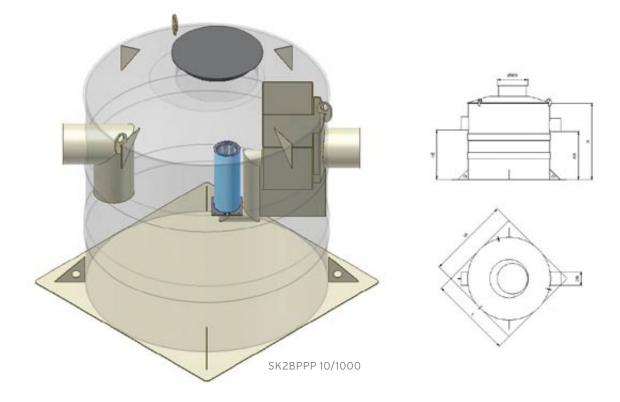
AQUAFIX[®]Separators from Polypropylene - Series H

AQUAFIX® - SKBPPP Coalescence separator with sludge trap and bypass



	Length mm	Width mm	5	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outLet mm		outlet	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	ltem No.
SKBPPP 10/1000	2500	2500	2374	50	2356	1001	3621	300	1110	1060	800	-	320,0	890	283610
SKBPPP 10/1000	2500	2500	2772	50	2356	1441	5049	300	1510	1460	800	-	350,0	890	283610
SKBPPP 15/1500	2500	2500	2674	75	2356	1501	4023	400	1317	1267	800	-	350,0	890	283615
SKBPPP 15/1500	2500	2500	3074	75	2356	1842	5583	400	1717	1667	800	-	380,0	890	283615





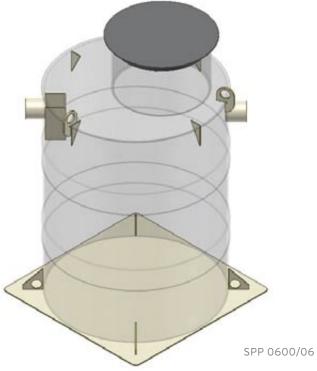
AQUAFIX® - SK2BPPP Coalescence separator with sludge trap and doublebypass

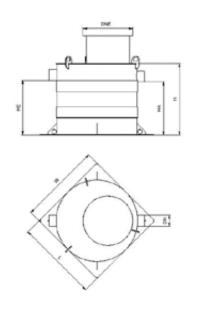
	Length mm			max. Flow l/s	ø Sepe- rator mm			DN in-/ outLet mm		outlet		DNE man- hole 2	Weight kg	storage capa- city l	ltem No.
SK2BPPP 10/1000	2500	2500	2474	100	2356	1001	3869	400	1167	1117	800	_	335,0	890	283010
SK2BPPP 10/1000	2500	2500	2774	100	2356	1441	4871	400	1467	1417	800	-	340,0	890	283010
SK2BPPP 15/1500	2500	2500	2774	150	2356	1501	4241	500	1367	1317	800	-	360,0	890	283015
SK2BPPP 15/1500	2500	2500	3074	150	2356	1842	5361	500	1667	1617	800	-	380,0	890	283015

AQUAFIX® "PP"

AQUAFIX[®]Separators from Polypropylene - Series H

AQUAFIX[®] - SPP Sludge trap

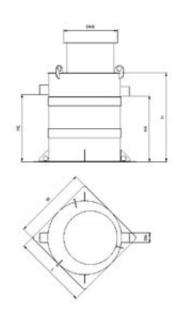


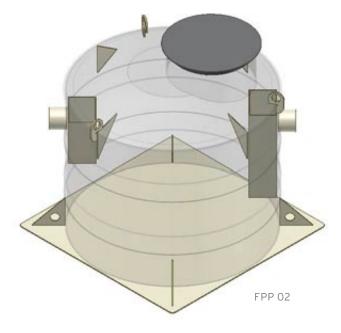


	Length mm	Width mm	Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l		DN in-/ outLet mm		outlet	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	ltem No.
SPP 0600/06	1000	1000	1675	-	938	607	-	150	881	856	800	-	54,0	-	284306
SPP 1000/10	1240	1240	1727	-	1174	1008	-	150	935	910	800	-	78,0	-	284310
SPP 1500/15	1500	1500	1804	-	1414	1545	-	200	990	965	800	-	128,0	-	284315
SPP 2000/20	1500	1500	2097	-	1414	2016	-	200	1283	1258	800	-	140,0	-	284320
SPP 2500/10	1500	1500	2449	-	1414	2615	-	150	1655	1630	800	-	160,0	-	284325
SPP 2500/20	1500	1500	2097	-	1414	2581	-	200	1283	1258	800	-	160,0	-	284326



AQUAFIX[®] - FPP Grease separator

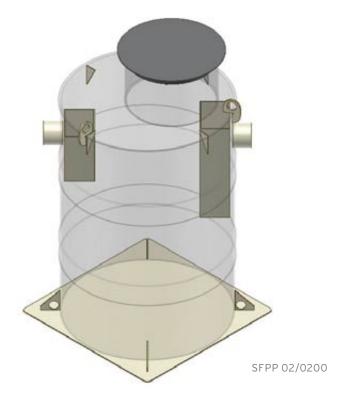


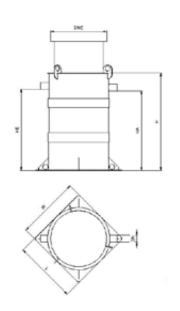


	Length mm	Width mm	Height mm	max. ø Flow l/s	Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l			outlet	DNE man- hole 1	man-	Weight kg	storage capa- city l	ltem No.
FPP 02	1000	1000	1694	2	938	-	567	150	825	800	800	-	60,0	157	285002
FPP 04	1240	1240	1998	4	1174	-	1223	150	1127	1102	800	-	83,0	226	285004
FPP 07	1500	1500	2224	7	1414	-	2008	200	1278	1251	800	-	160,0	321	285007
FPP 10	2000	2000	2011	10	1886	-	3008	200	1078	1053	800	-	196,0	573	285010
FPP 15/20	2500	2500	2219	20	2356	-	5561	200	1278	1253	800	-	270,0	890	285020

AQUAFIX[®]Separators from Polypropylene - Series H

AQUAFIX® - SFPP Grease separator with sludge trap

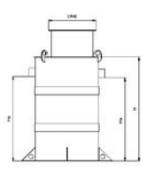


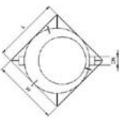


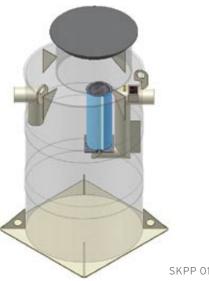
	Length mm	Width mm	Height mm	max. Flow l/s	ø Sepe- rator mm	sludge trap capa- city l	sepa- rator capa- city l	DN in-/ outLet mm		HA H outlet mm	DNE man- hole 1	DNE man- hole 2	Weight kg	storage capa- city l	No.
SFPP 02/0200	1000	1000	2035	2	938	213	592	150	1166	1141	800	-	66,0	157	285302
SFPP 02/0400	1000	1000	2305	2	938	411	585	150	1436	1411	800	-	71,0	157	285303
SFPP 04/0400	1200	1200	2307	4	1174	423	1140	150	1436	1411	800	-	90,0	226	285304
SFPP 04/0800	1240	1240	2654	4	1174	806	1140	150	1803	1778	800	-	98,0	226	285305
SFPP 07/0700	1500	1500	2654	7	1414	715	1983	200	1708	1683	800	-	180,0	353	285307
SFPP 07/1400	1500	1500	3104	7	1414	1429	1983	200	2158	2133	800	-	200,0	353	285308
SFPP 10/1000	2000	2000	2116	10	1886	1003	2292	200	1183	1158	800	-	203,0	573	285310
SFPP 10/2000	2000	2000	2466	10	1890	2006	2292	200	1533	1508	800	-	227,0	573	285311



AQUAFIX® - MINI separators







SKPP 01,5/0150 H

	Length mm	Width mm	Height mm		rator	5		DN in-/ outLet mm		outlet		man-	Weight kg	storage capa- city l	ltem No.
SKPP 01,5/0150 H	-	-	1000	1	588	130	85	100	801	776	600	-	18,0	28	84604HU
SKPP 01,5/0150 H	-	-	1000	1	588	130	85	100	801	776	600	-	18,0	28	84602HU

AQUAFIX®SEPARATORS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES "PP" MADE OF POLYPROPYLENE

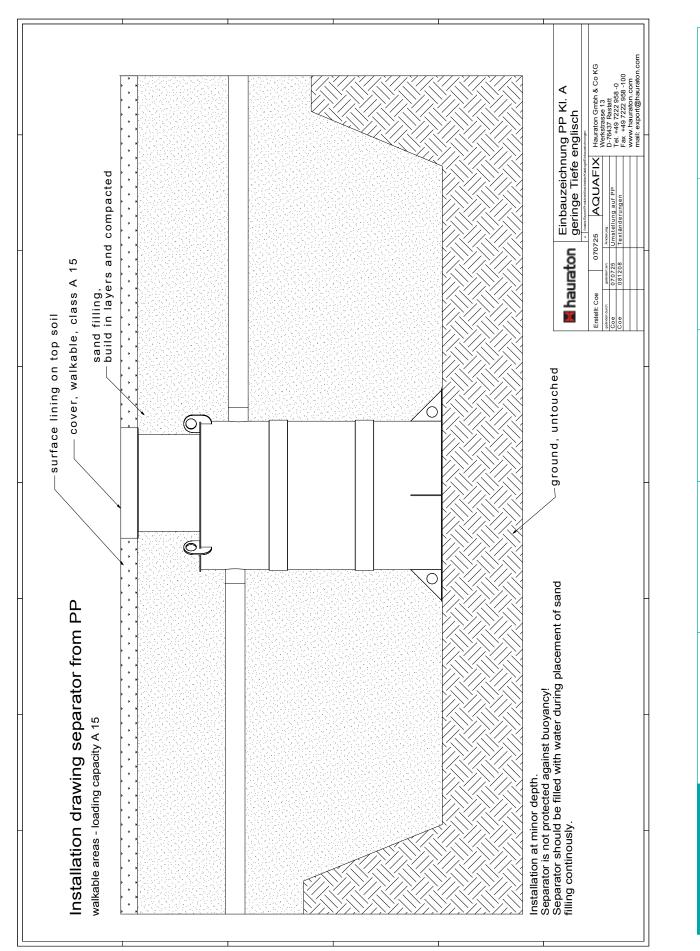
INSTALLATION ADVISES FOR AQUAFIX®SEPARATORS SERIES "PP" MADE OF POLYPROPYLENE

□ Installation in a frequented area

- 1. The system must be installed below ground.
- 2. Place the system on a stable base (concrete) in a horizontal position.
- 3. Connect the inlet and the outlet to the sewage system.
- Connect the height adaptation equipment if necessary, and adjust the height thereof depending on the nature of the terrain.
- 5. Fill the system with clean water, packing layers of sand around the equipment.
- 6. If the system is being installed in a frequented area a 400 kN cast iron cover must be provided. The cast iron lid is attached to the selfsupporting concrete base and sealed, whereby the edge of the floor (height and reinforcement must be calculated) serves as a base.

□ Installation **outside** frequented areas.

- 1. The system must be installed below ground.
- 2. Place the system on a compressed earth or concrete base in a horizontal position.
- 3. Connect the inlet and the outlet to the sewage system.
- 4. Connect the ventilation (diam. 50 mm).
- If necessary, attach the height adapter and adjust the height thereof depending on the nature of the top edge of the ground.
- 6. Fill the system with clean water, packing layers of sand down around the system.
- If several height adapters are required, a selfsupporting concrete base must be made (base height and reinforcement must be calculated).



INSTRUCTIONS

AQUAFIX® STEEL "G"

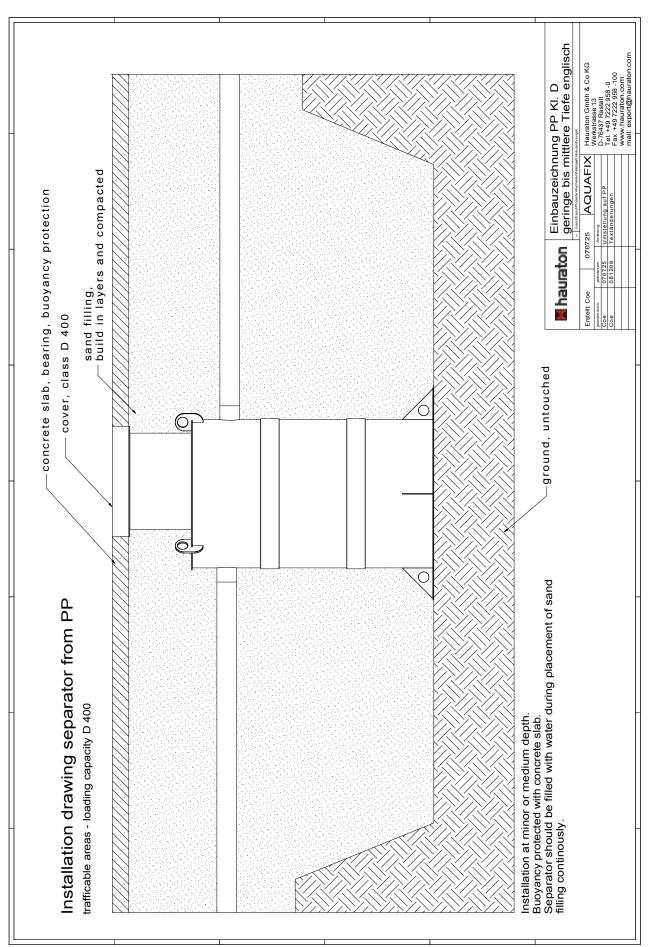
AQUAFIX® STEEL "k"

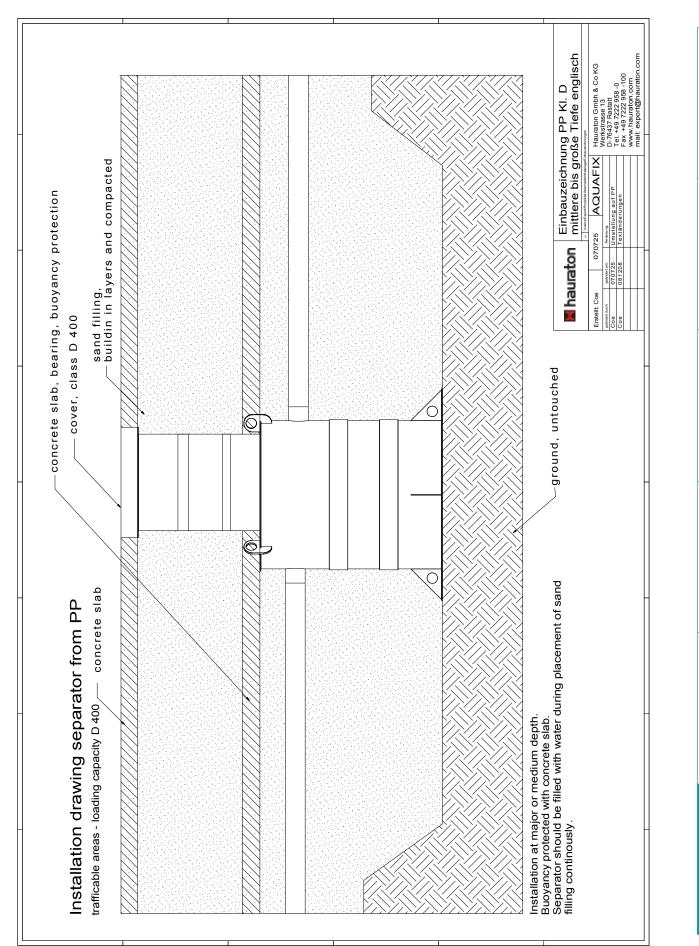
AQUAFIX[®] CONCRETE

AQUAFIX® "10 PE"

AQUAFIX[®] "PP"







INSTALLATION INSTRUCTIONS

AQUAFIX® STEEL "k"

AQUAFIX® STEEL "G"

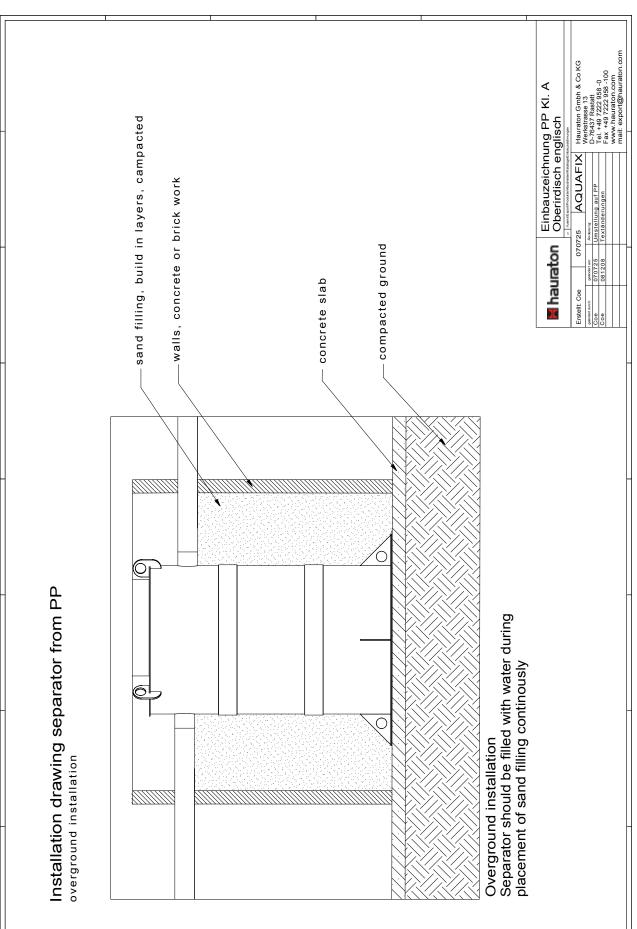
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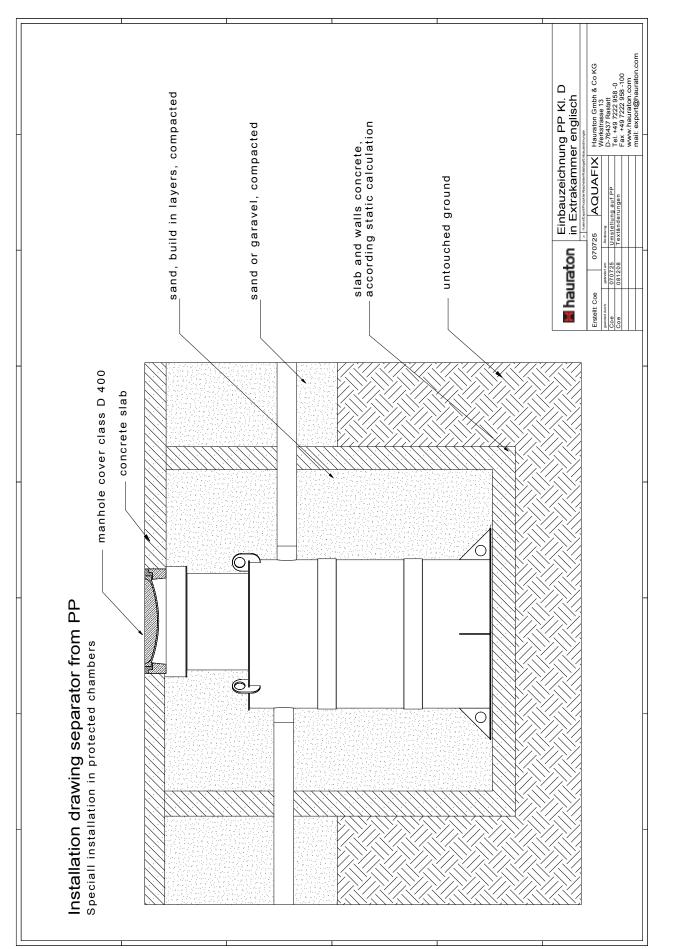
AQUAFIX[®] CONCRETE

AQUAFIX® "10 PE"

AQUAFIX[®] "PP"







INSTALLATION INSTRUCTIONS

AQUAFIX®SEPARATORS

INSTALLATION INSTRUCTIONS SEPARATORS SERIES "PP" MADE OF POLYPROPYLENE

OPERATION AND MAINTENANCE OF AQUAFIX[®] LIGHT LIQUID SEPARATORS SERIES "PP" MADE OF POLYPROPYLENE

□ Before start-up

- 1. Clean entire system and remove residual mortar, soil etc.
- 2. Fill sludge trap and separator with fresh water.

Please ensure that water level is same in all chambers of tank, and fill in sequence!

3. Re-check joints of system for leaks.

□ Operation

As well as following the maintenance guide, the entire system must comply with the following regulations:

- EN 858 (Light liquid separating systems)
- Local drainage statutes and other instructions

Only sewage that does not have a detrimental effect on the intended operation of the separator must be led into the system. Emulsions and solvents (cold cleaners, drilling and cutting oil, water-soluble hydrocarbons etc.) must not be allowed to enter the separator. Dispose of these materials together with the special waste. Rainwater from surfaces for which the separator was not intended and domestic sewage must not be led into the separator. With coalescence separators: Do not remove coalescence insert during operation!

□ Disposal

Separator must be drained at least every six months, but should not be allowed to fill to more than 85% of its storage capacity. Cleaning must occur more often if the storage capacity of the separator or sludge trap is exceeded. Operation must not be interrupted. All separated material must be drained, cleaned and taken away for disposal by an approved disposal company. Please empty the separator and the sludge trap of this type of system at the same time if possible. First extract the oil layer from the system and then the layer of water beneath it, into separate tanks if possible. Clean float and seal every time the system is emptied and check operation thereof.

With coalescence separators: If the coalescence material is soiled, remove coalescence material, clean above sludge trap, give damaged coalescence material to disposal company and replace with new material. Replace coalescence material. Re-fill system with fresh water whenever it is emptied and cleaned.





OPERATION AND MAINTENANCE OF AQUAFIX[®] SEPARATORS SERIES "PP" MADE OF POLYPROPYLENE

□ Before start-up

Clean entire system and remove any residual mortar, soil etc. if necessary. Fill entire system with fresh water. Check joints of system for leaks.

□ Operation

As well as the maintenance guide, the following instructions must be followed for the entire system:

EN 1825 Grease separating systems

• Local water removal regulations and other instructions Only sewage that does not have a detrimental effect on the intended operation of the separator must be led to the separator. It is particularly important to prevent domestic sewage and light mineral liquids from entering the separator. Do not allow rainwater to enter the system.

Disposal

- Grease separators must be cleaned at least once per month, possibly more frequently. Cleaning must take place more frequently if the separator or sludge trap storage capacity is exceeded. The operation of the separator must not be affected.
- 2. Have all separated material drained, cleaned and taken away by an approved disposal company.
- 3. Fill entire system with fresh water after it has been emptied and drained.
- Use mobile ladders when entering the system.
 Extract vapour/air mixture beforehand. Pay attention to accident prevention regulations!

□ Maintenance

The separator must be serviced at least once per month. The system must be drained and cleaned in order to do this. Carefully check that all system components are in good working order and undamaged. Then refill system with fresh water. It is extremely important to observe the accident prevention regulations!



SPORT

The Product Range for Sports Venues Version 4.2



The product range for stadiums and sports venues

Modern construction products designed specifically for use in sports venues

The modern German sports arenas have an excellent reputation all over the world. Top-level international competitions such as the Football World Cup or the 2009 World Athletic Championships were held in Germany and showed that our stadiums provide ideal conditions for competitors and fans alike.

HAURATON has been involved with events outside Germany too: at other international sporting events including the Euro Football Championship in Poland and the Ukraine and the 2009 World Handball Championship in Croatia it has been Hauraton's responsibility to install products that will drain playing surfaces reliably. Our specially designed product range for sports facilities is evidence of our extensive competence in this field and has not failed to impress designers, engineers, clients and contractors alike.

HAURATON is member of IAKS



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	SPORTFIX® Perfect drainage – safe past the post	4
	Basic principles for the construction of sports facilities	6
	Service package for designers	
1. CHANNE	LS FOR IAAF ACCREDITED FACILITIES	14
	SPORTFIX [®] Channels	14
2. CHANNE	LS FOR SCHOOL SPORT AND PUBLIC FACILITIES	24
March 1	 a) PREMIUM Package - RECYFIX[®]PRO Channels b) STANDARD Package - RECYFIX[®]STANDARD Channels 	26 30
3. CHANNE	LS FOR ARTIFICIAL TURF FIELDS	34
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Additional drainage solutions

66

SPORTFIX®

Perfect drainage - safe past the post. The comprehensive product range for all sports facilities

Requirements

Water has to be quickly and reliably removed from sports fields and competition areas. The drainage channels that are used have to comply with the latest standards and also meet IAAF requirements. Sports facilities should be designed and equipped to prevent serious injury to sports persons if falls or accidents occur.

Solution

The SPORTFIX range offers products that meet these requirements, e.g. drainage channels made from 100 % recycled PE-PP, soft kerbs with elastic rubber padding, sand traps, water jump kit kits and distribution shafts.



Application areas

- □ Sports facilities with synthetic running tracks
- $\hfill\square$ Sports facilities with artificial grass surfaces
- Hockey pitches
- Jumping pits
- □ Water jump kits
- Mini pitches
- Tennis courts
- Playgrounds
- □ Swimming pools



Side drainage for running tracks



Slotted channel in the middle of the pitch





SPORTFIX slotted channel in the Estádio da Luz



Temporary cable duct in Arsenal FC's Emirates Stadium in London

Bespoke solutions

Estádio da Luz, Lisbon, Portugal: slotted channel with raised turf edge for unimpeded transition to the pitch.

In the stadium which is home to the famous Lisbon football club Benfica the whole interior area was drained using HAURATON SPORTFIX channels. All transitions to the pitch had to be visually unobtrusive and unimpeded - that was the briefing to the team designing the stadium for the final of the Euro Championship. The solution was provided by a SPORTFIX slotted channel designed and manufactured with a turf edge at exactly the same height as the green drainage mats. This product provides a neat separation of the pitch from the surrounding areas and yet is virtually invisible. It goes without saying that surface water is reliably drained away.

Temporary cable duct running the length of the pitch.

FASERFIX SUPER channels with the boltless locking system SIDE-LOCK enable TV cables to be installed very qucikly. This guarantees technical reliability while at the same time minimising the risk of tripping over loose cables.



Some HAURATON SPORT references out of thousands:

- □ Easy Credit Stadium in Nuremberg, Germany
- 🗆 Ceahlaul Stadion in Piatra Neamt, Romania
- 🗆 Stadium Zukovskij in Moscow, Russia
- □ Red Star Stadium in Belgrade, Serbia
- D PGE Arena in Gdansk, Poland
- □ National Stadium in Warsaw, Poland
- □ Stadium in Wroclaw, Poland
- Multi-function Arena in Poznan, Poland
- Cenard Stadium in Buenos Aires, Argentina
- 🗆 Khalifa Stadium in Doha, Qatar

- □ Stadium in Rennes, France
- □ MM Arena in Le Mans, France
- □ Cardiff City Stadium, UK
- Wembley Stadium in London, UK
- □ FC Emirates Stadium (Arsenal) in London, UK
- □ ...

Designers' service package

HAURATON develops innovative products and supports designers of sports venues in the planning and realisation of their projects.

Individual design support

You can contact our field sales staff at any time for expert and qualified advice. On request we will produce CAD-based installation plans for you. We are happy to work out solution proposals for your specific drainage requirements. We also have experience of designing solutions for renovation projects.

Specifications

We are happy to work out project-specific tender proposals for your building project. We need detailed information on the on-site situation for this purpose. Why not give us a call?

Installation advices

General installation advices are available for all products in the HAURATON sport range. These instructions are always included when we ship our products, but we are also happy to send them out in advance.

FASERFIX SUPER channels, **RECYFIX** channels

FASERFIX SUPER and RECYFIX channels are the perfect solution for draining grandstands and external facilities! FASERFIX SUPER channels are available in nominal widths from 100 to 500 mm and RECYEIX channels from 100 to 300 mm. Gratings are available in different designs and load classes in accordance with EN 1433.

For more information please refer to our catalogues **CIVILS** and **LANDSCAPING**.

Advantages for designers

- Compliance with all international guidelines as set out by the IAAF
- 🗹 Individual design support
- Service free of charge: hydraulic calculations, installation plans, project-specific tender proposals
- Latest product information and reference database available online



Members of our team will be pleased to pay you a visit at your office or on site to provide expert advice.

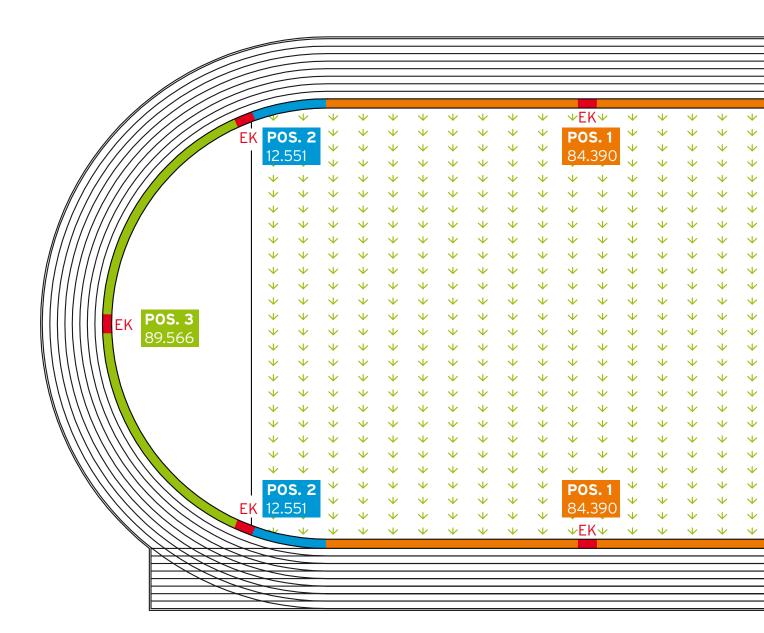
Drainage channels, layout plan

IAAF accredited facilities

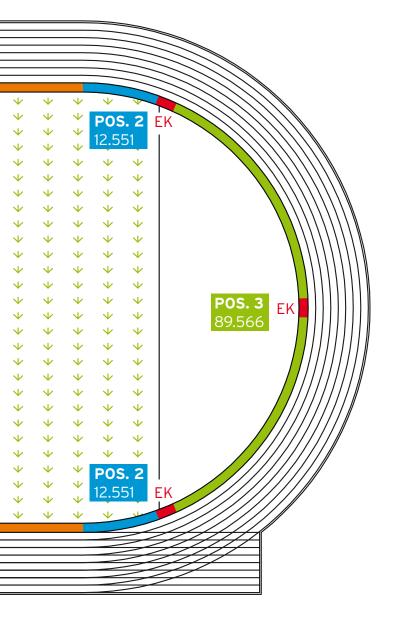
Sports facilities for international competitions have to be according the strict guidelines of IAAF to be accepted for the Olympics and all other official championships.

HAURATON provides products for running track drainage which fulfill all demands of IAAF and which allow to create exactly a 400 m running track. That means the SPORTFIX Channels can be used as track limitation. On these sports facilities all achieved records will be acknowledged.

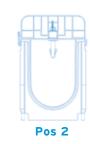
Sample running track which is according the IAAF guidelines













Parts list

Number	Designation	Product code
Pos 1		
168	SPORTFIX SUPER Slotted Channel with upstand	7820
169	SPORTFIX plastic blank cover, straight	7563
2	SPORTFIX type 0 trash box	7830
2	SPORTFIX access cover	7785
Pos 2		
50	SPORTFIX SUPER Slotted Channel with upstand	7820
52	SPORTFIX plastic blank cover, curved	7564
4	SPORTFIX type 0 trash box	7830
4	SPORTFIX access cover	7785
Pos 3		

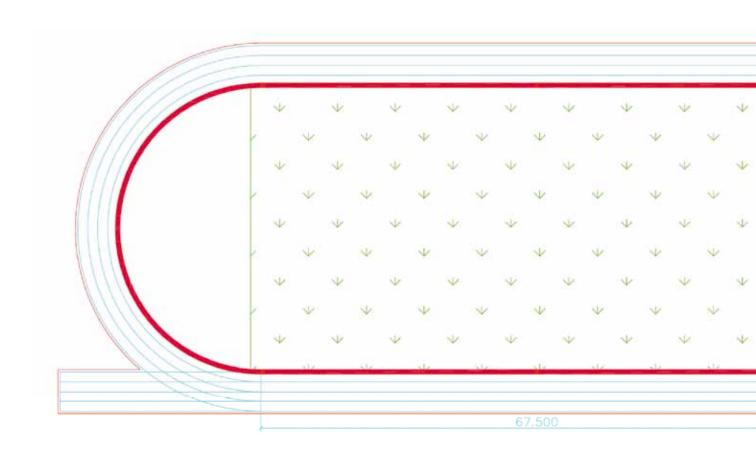
SPORTFIX SUPER slotted channel	7810
SPORTFIX blank cover, curved	7564
SPORTFIX type 0 trash box	7830
SPORTFIX access cover	7785
	SPORTFIX blank cover, curved SPORTFIX type 0 trash box

Drainage channels, layout plan

School sport and public facilities

School sport and public sports facilities need not fulfill the IAAF guidelines. Therefore HAURATON can provide alternative products for the track drainage. These products have also top quality but less technical features.

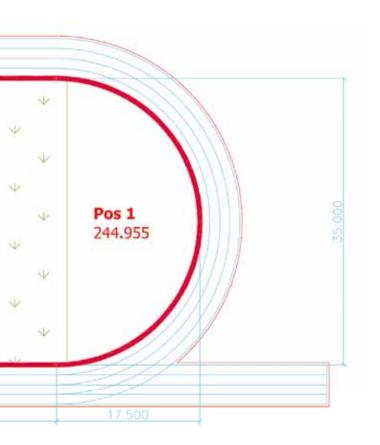
Sample running track for school sport and public facilities



In this sample layout a school sports facility with a running track length of 250 m is shown.

There are hardly limitations in the length of the running track. Just get in touch with us to find out which and how many channels are requested for your sports facility.







Pos 1

Parts list

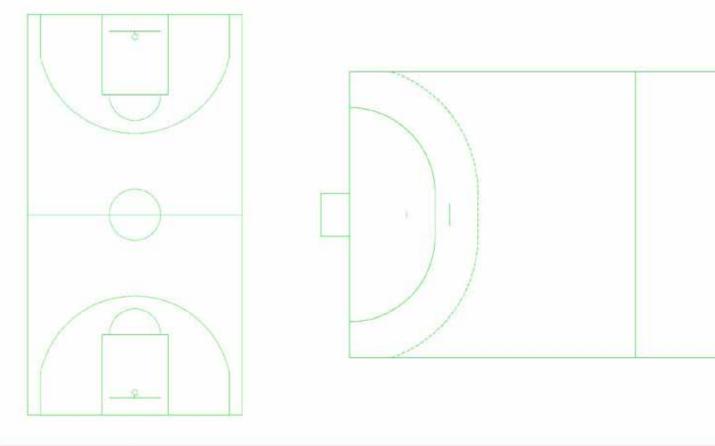
Numbe	r Designation	Product code
Pos 1		
244	RECYFIX PRO 100 Type 010 with FIBRETEC Slotted grating SW 9, black	47060
8	RECYFIX PRO 100 Trash box with mud bucket and FIBRETEC Slotted grating SW 9, black	7560

Drainage channels, layout plan

Small sports facilities

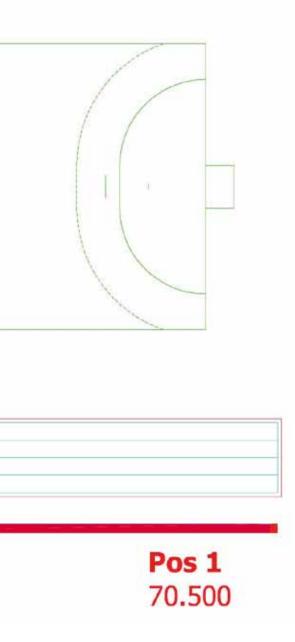
Small sports facilities without a complete running track can be drained with standard drainage channels.

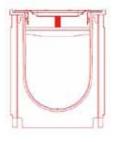
Sample running track for small sports facilities



In this sample layout a small sports facility with a running track length of 70.5 m is shown.







Pos 1

Parts list

Number	Designation	Product code
Pos 1		
69	RECYFIX STANDARD 100 Channel Type 010 with slotted grating, galvanised, cl. A 15, locked	40296
3	RECYFIX STANDARD 100 Trash box with mud bucket and slotted grating, galvanised, cl. A 15, locked	40256

Tricks and hints

Installation

SPORTFIX plastic covers are installed with **3 mm spacing** (= thickness of a folding wooden rule).

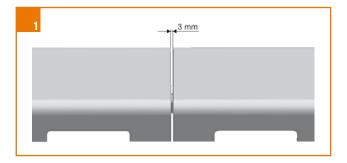


Figure 1: Spacing

Covers are installed in a clockwise direction. The gratings centre one another by means of the black connecting springs. SPORTFIX blank covers have four spring-loaded steel clamps on their underside; these are used to clip the grating into the slotted channel.

Installing and connecting different channel types

When installing SPORTFIX channels and SPORTFIX slotted channels there is a height difference at the joining point that needs to be evened out. Using the raised slot in the slotted channel, which joins up superbly with the running track surface, this channel must be set deeper by the thickness of the running track surface (approx. 15 mm).

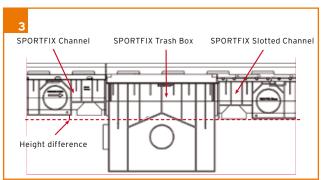


Figure 3: Evening out a height difference

Height adjustment is carried out with the help of an inlet box; the two runs of channel are connected to either side of the inlet box and an inspection cover is installed if necessary (see diagram).

Cut to length

SPORTFIX plastic covers can be shortened easily using a wood saw. The cut **must not be made through the side inlet openings**; if necessary, two gratings should be shorted in such a way as to achieve the required length without any cuts in the inlet area.

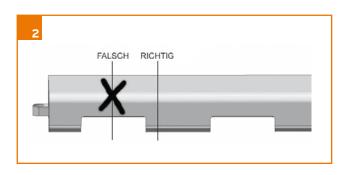


Figure 2: Cutting a plastic cover to length

SPORTFIX[®]drainage solutions



Installation

General installation Instructions

For all channels installed in sports facilities our general installation instructions are valid. We will hand out the latest version of installation advices for every order.

Pictured installation documentation

To get an idea of the correct installation of SPORTFIX Channels you find following a pictured installation documentation.

Step 1: Foundation on subbase



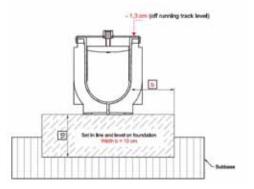


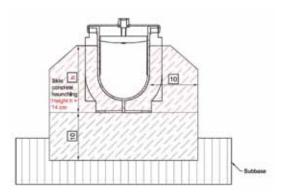
Step 2: Lining and levelling



Step 3: Concrete haunching

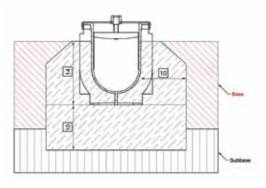






Step 4: Base for surfacing

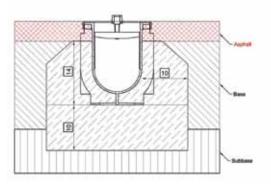




Step 5: Asphalt



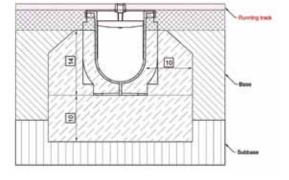
Step 6: Running track surface

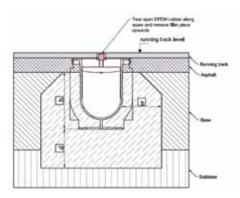












SPORTFIX[®]Channels for IAAF accredited facilities

Perfect drainage - safe past the post.

The comprehensive product range for all IAAF sports facilities



Hauraton



At a glance

V-art

A REAL PROPERTY.

WALL VANDER

- Channels made from recycled PE-PP
- ✓ Variety of different ways of draining surfaces and running tracks

✓ Products meet IAAF guidelines

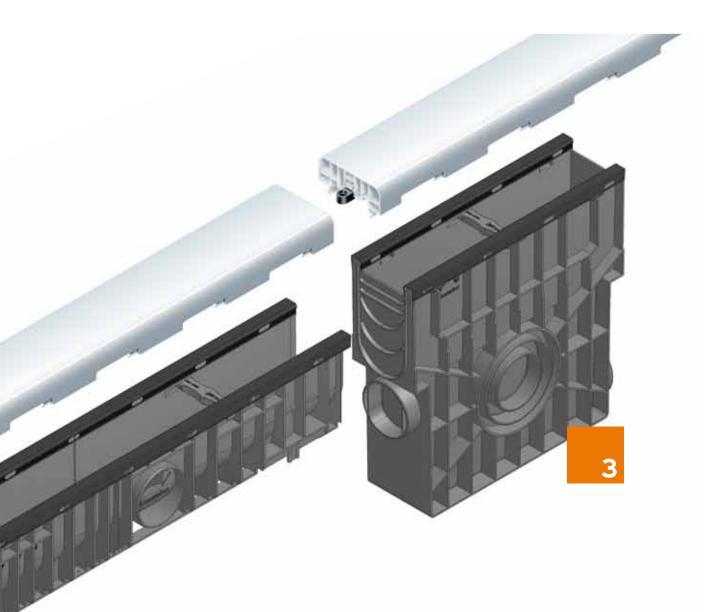
SPORTFIX® Channels for IAAF accredited facilities

Perfect drainage - safe past the post.

The comprehensive product range for all IAAF sports facilities.







Material

SPORTFIX channels and trash boxes are manufactured from 100% recycled PE-PP which makes them lightweight and easy to install. The material is highly durable, UV-stabilised, environmentally friendly and impervious to liquids. The top surfaces of the channels are steelframed; this ensures that gratings lock on securely. The steel frame also enables a permanent join between the track surface and channel.

1

■ SPORTFIX channels made from recycled PE-PP, with tongue and groove connection for precision installation, and with integrated, CDP-coated metal upper edge.

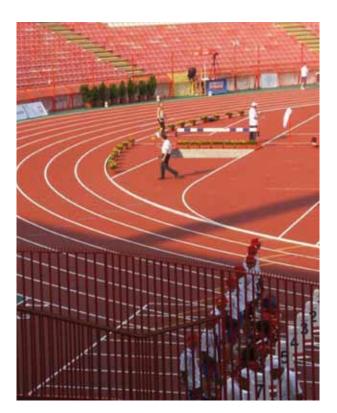
SPORTFIX plastic cover made from UVresistant, unbreakable plastic, double-sided inlet with locking springs

3

Trash box with facility for connecting a conduit acc. to DN 100/150

References of sports facilities according IAAF guidelines









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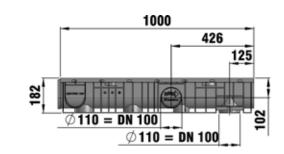
Channel type 010

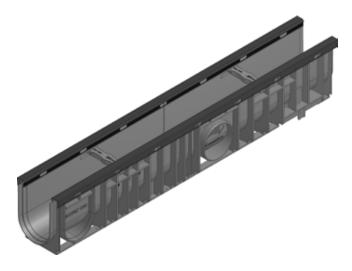
Item 3

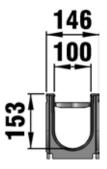
SPORTFIX[®]Channels

SPORTFIX Channels - nominal width 100 mm

Advantages of SPORTFIX channels: PE-PP material Easy to install UV-resistant Light and very durable Item 2 Item 1 Item 2







Item	Туре	Length mm	Width mm	Height mm	Weight kg	Product code
1	010	1000	146	153	3,1	7800



426

125

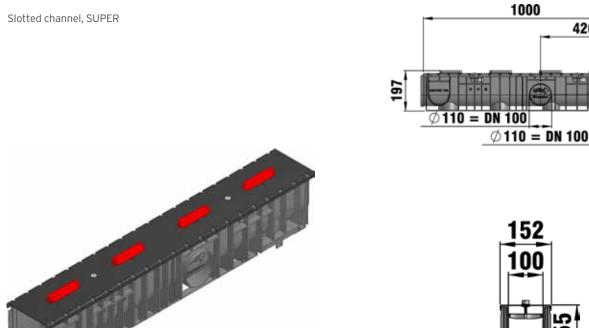
5

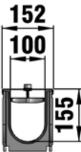
SPORTFIX[®]Slotted channel

SPORTFIX Slotted channel - nominal width 100 mm

Advantages of SPORTFIX slotted gratings:

- □ CDP-coated to ensure a perfect join with the running track surface.
- □ EPDM slots that are easily opened using a screwdriver once the track surface has been laid.





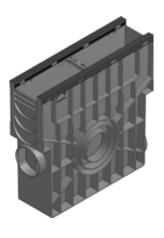
Item	Туре	Length mm	Width mm	Height mm	Weight kg	Product code
3	SUPER	1000	152	197	5,8	7810
1	SUPER with upstand	1000	152	198	5,9	7820

SPORTFIX®Trash boxes

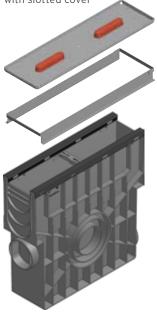
SPORTFIX Trash boxes

In visual terms SPORTFIX trash boxes fit seamlessly with the corresponding channel. The transition from square channel to slotted channel can be achieved easily using an trash box.

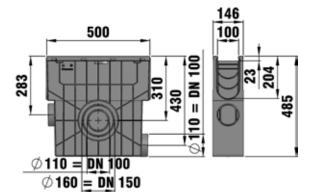
SPORTFIX trash box



Inspection grating with slotted cover



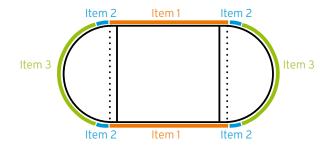
Item	Туре	Length mm	Width mm	Height mm	Weight kg	Product code
1, 2, 3	Туре О	500	160	415	4,4	7830
3	Access cover for connecting to slotted channels	500	167	40	2,8	7785

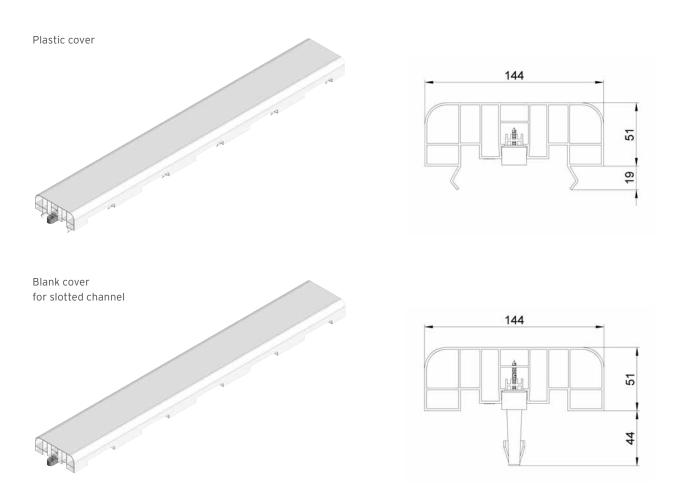


SPORTFIX®Plastic covers

SPORTFIX Plastic covers

SPORTFIX plastic covers are made from UV-resistant white plastic. They are resistant to frost and gritting material, do not absorb water and are unbreakable. The smooth surface prevents dirt accumulation. SPORTFIX plastic covers are lightweight. They are quick and easy to fit. SPORTFIX plastic covers lock automatically in the lower part of the SPORTFIX channel. The tongue-andgroove system ensure that neat lines are maintained. SPORTFIX blind gratings can be used with SPORTFIX slotted channels.





Water flows into the channel on both sides of the cover

Item	Туре	For curved area/radius	Length mm	Width mm	Height mm	Weight kg	Product code
1	Straight	-	1000	143	50	1,5	7560
2	Curved	r=36.5 m	1000	143	50	1,5	7561
1	Blank cover straight	-	1000	143	50	1,5	7563
3	Blank cover curved	r=36.5 m	1000	143	50	1,5	7564

SPORTFIX[®]Aluminium Frame

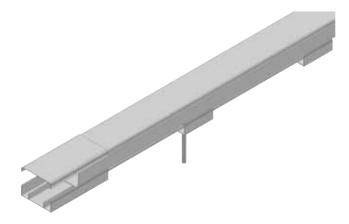
SPORTFIX Aluminium Frame

Many different events are held at sports facilities, often demanding moveable boundaries. Such boundaries may be provided and removed easily with SPORTFIX Aluminium Frames.

The SPORTFIX Aluminium Frames are suited for use as a mobile border for running tracks as well as a cover for slotted channels. They are manufactured as a complete unit with integrated push-in elements and fixing pegs.

SPORTFIX Aluminium Frames are made of an aluminiummagnesium alloy. SPORTFIX Aluminium Frames are available either straight or curved, both in 5 m lengths. The frames have an intake on both sides.





Туре	Length mm	Width mm	Height mm	Weight kg	Product code
SPORTFIX Aluminium Frames, straight	5000	60	50	6,2	7085
SPORTFIX Aluminium Frames, curved, r = any	5000	60	50	6,2	7086

SPORTFIX Aluminium frames are not available from stock.

SPORTFIX[®]Channels for school and public sports facilities

Light and durable track drainage.

Perfect drainage solutions for school sport and public sports facilities.





At a glance

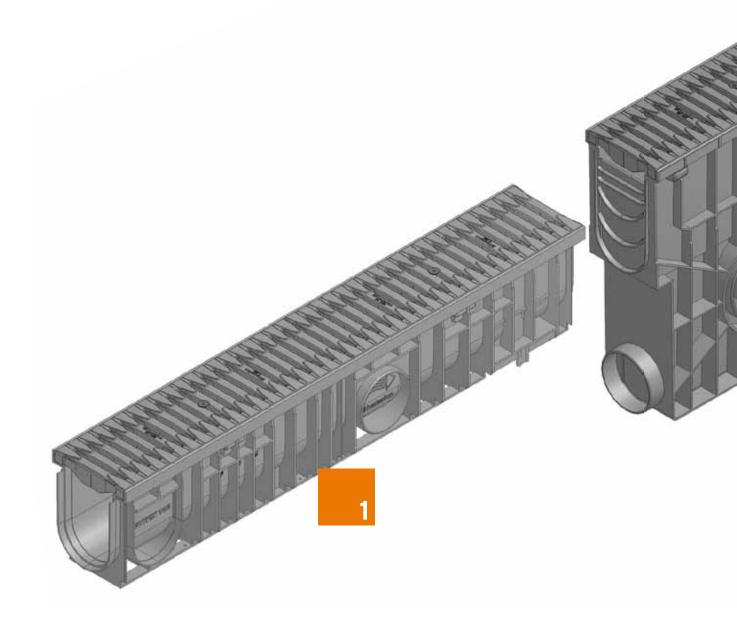
- ☑ Channels made from recycled PE-PP
- Easy and fast to install
- Installation in straight and curved areas possible

SPORTFIX[®]Channels for school and public sports facilities

Light and durable track drainage.

Perfect drainage solutions for school sport and public sports facilities.





Material

All SPORTFIX and RECYFIX channels as well as trash boxes are manufactured from 100% recycled PE-PP which makes them lightweight and easy to install. The material is highly durable, UV-stabilised, environmentally friendly and impervious to liquids.

RECYFIX Channels are available with gratings manufactured from PA-GF (FIBRETEC) and galvanised or stainless steel (Slotted gratings).

SPORTFIX slotted channels come equipped with slotted gratings made from CDP-coated steel. In the case of the SPORTFIX Super slotted channels the inlet slots consist of EPDM inserts, and are initially closed. Once the running track surface has been laid the inserts can be effortlessly opened.



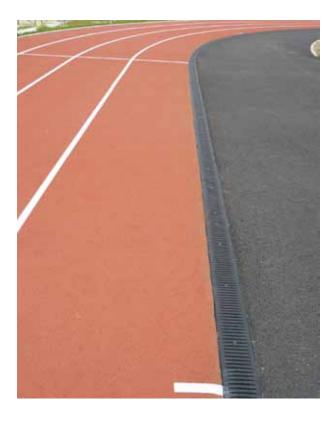
Channels made of PE-PP, according DIN V 19580 / EN 1433, CE-conform, with groove and tongue with FIBRETEC Slotted grating, slip-resistant, loading capacity C 250



 Trash box with facility for connecting a conduit acc. to DN 100/150

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References of school and public sports facilities









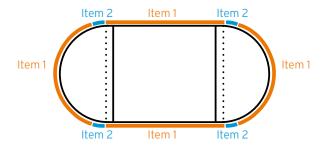


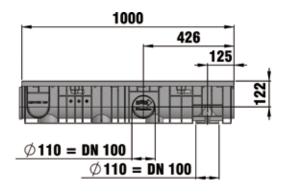
RECYFIX®PRO Channels

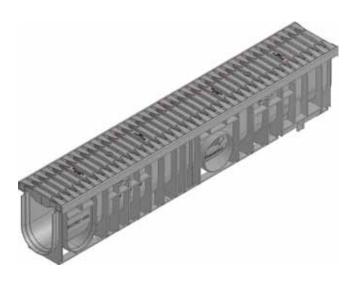
RECYFIX PRO Channels - nominal width 100 mm

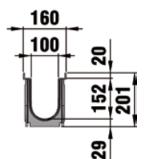
Advantages of RECYFIX PRO Channels:

- Channel made of PE-PP and grating made of high-quality PA-GF (Polyamide)
- □ drainage system according EN 1433
- lightweight, robust and easy to install
- through the groove and tongue system there is no gap in the curved area









Item	Туре	Length mm	Width mm	Height mm	Weight kg	Product code
1	Type 010 with FIBRETEC slotted grating, SW 9, black	1000	160	201	4,9	47060

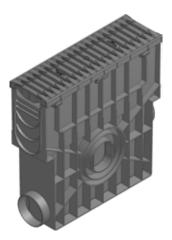
The RECYFIX PRO range can be combined with the SPORTFIX Channel range.

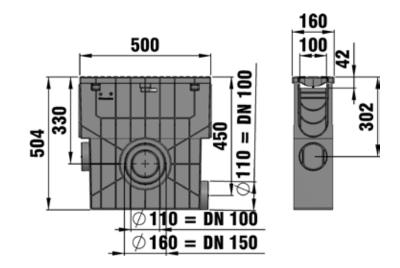


RECYFIX[®]PRO Trash boxes

RECYFIX PRO Trash boxes

RECYFIX PRO trash box

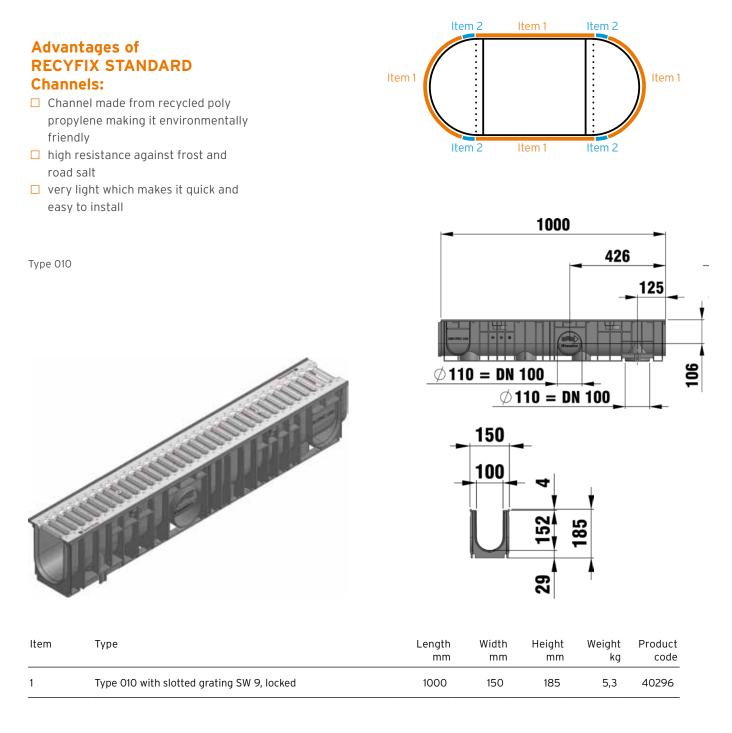




Item	Туре	Length mm	Width mm	Height mm	Weight kg	Product code
2	Trash box with mud bucket and FIBRETEC slotted grating, SW 9, black	500	160	438	5,9	47054

RECYFIX[®]STANDARD Channels

RECYFIX STANDARD Channels - nominal width 100 mm

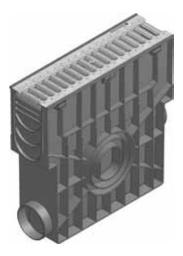


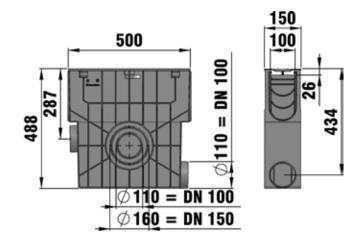


RECYFIX[®]STANDARD Trash boxes

RECYFIX STANDARD Trash boxes

RECYFIX STANDARD trash box

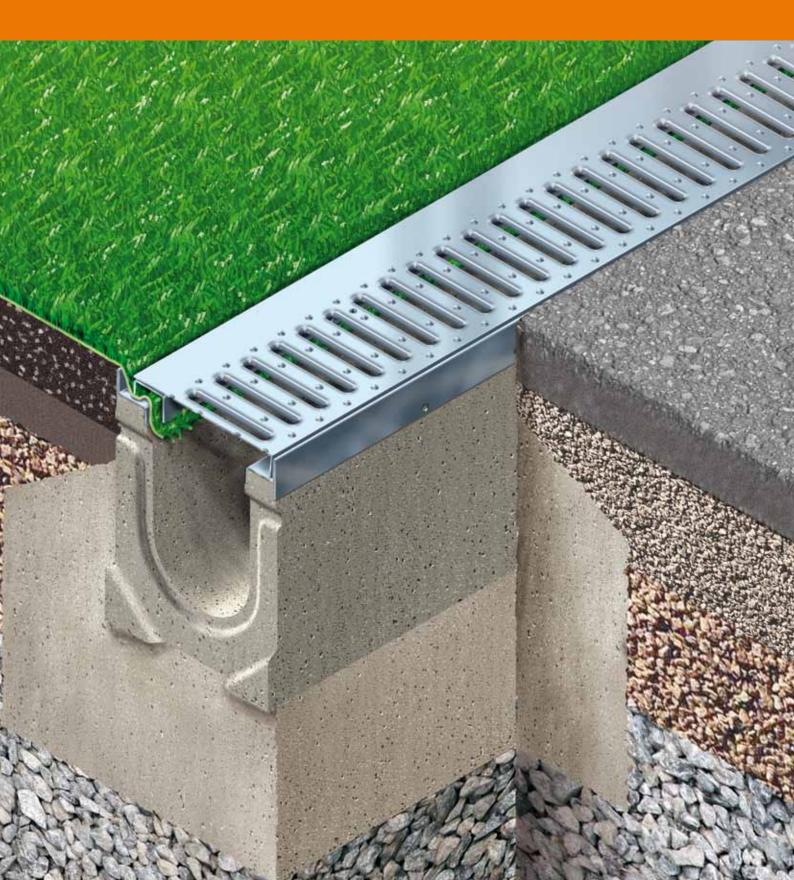




Item	Туре	Length mm	Width mm	Height mm	Weight kg	Product code
2	Trash box with plastic bucket, slotted grating, SW 9, trafficable, locked	500	150	488	4,3	40256

SPORTFIX[®]Channel type PARIS

Tightning different types of artificial turf easily and neatly. For applications like hockey pitches.





At a glance

- Channels provide a dual function: drainage and securing artificial turf
- ✓ grating can be removed for cleaning while the artificial turf remains secured

SPORTFIX[®]Channel type PARIS

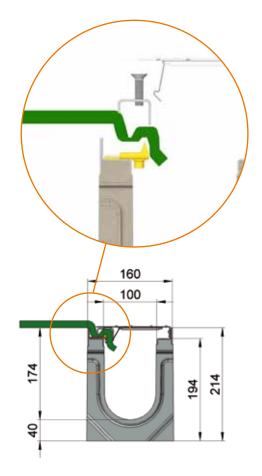
SPORTFIX type PARIS -Artificial turf tightning

The type PARIS is a system for tightning different types of artificial turf easily and neatly. The system is particularly suitable for hockey pitches. Channels type PARIS and kerbing absorbs considerable tension forces.

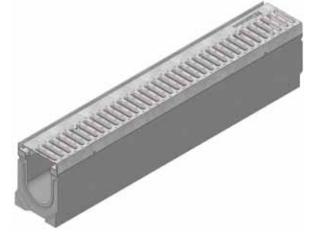
The SPORTFIX Channels type PARIS have the dual function of providing drainage of the playing fields as well as thightning artificial turf independently of the grating. The grating can be removed for cleaning while the artificial turf remains fully tightened.

The system is supplied completely with a slotted grating

and clamping strips. When securing the grating into the channel, the two spring fixings are clipped under the edges of the clamping strips. This vandal proof fixing secures the grating without bolts. A whole range of thicknesses of artificial turf may be fixed with the clamping strips.



SPORTFIX channel type PARIS



Туре	Length mm	Width mm	Height mm	Weight kg	Product code
Channel type PARIS with slotted grating, galvanised	1000	160	214	43,5	7342
Channel type PARIS with slotted grating, galvanised, 0.5 m	500	160	214	23,0	7350
Channel angle type PARISwith slotted grating, galvanised, 90°	485/645	160	-	52,0	7345

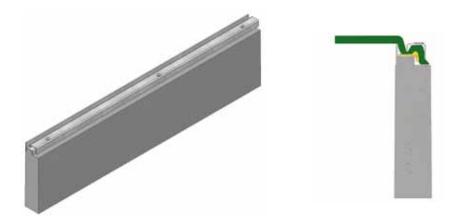
SPORTFIX®Trash box / kerb type PARIS

SPORTFIX inlet box type PARIS



SPORTFIX kerb type PARIS

If drainage is not required, the artifical turf may be tightened with kerbs type PARIS. Here the artificial turf is fixed as described for the channels by a clamping strip. Kerbs type PARIS as well as the channels are supplied with the required quantity of grippers, countersunk bolts to bolt the grippers and countersunk bolts to bolt the clamping strip.



Туре	Length mm	Width mm	Height mm	Weight kg	Product code
Trash boxes type PARIS	500	160	500	51,5	7352
Kerb type PARIS with clamping strip	1000	60	250	36,0	7310
Type PARIS installation kit	-	-	-	-	715

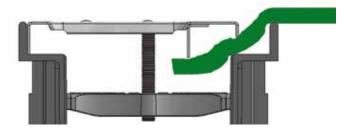
SPORTFIX[®]Channel type ROME

SPORTFIX type ROME -Artificial turf securing

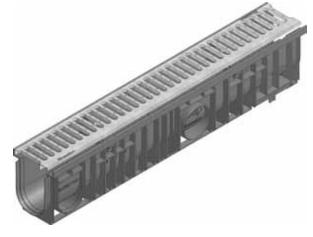
The SPORTFIX channels type ROME are for artificial turf with a thickness between 6 and 18 mm and which needs no tension. With the type ROME channels artificial turf with a higher own weight is used. This kind of artificial turf needs no securing with a clamping strip.

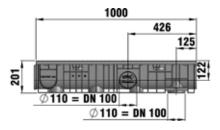
The artificial turf is just layed into the channel and jammed with the slotted cover which is locked with a locking handle (two per metre).

Thickness of artificial turf between 6 and 18 mm.



SPORTFIX channel type ROME



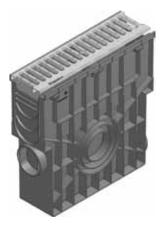


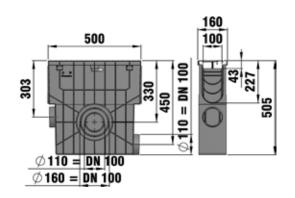


Туре	Length mm	Width mm	Height mm	Weight kg	Product code
Channel type ROME Type 010 with slotted grating, galvanised for artificial turf from 6 to 18 mm height	1000	160	201	5,4	7842
Channel type ROME Type 01005 with slotted grating, galvanised for artifi- cial turf from 6 to 18 mm height	500	160	201	2,8	7849

SPORTFIX[®]Trash box type ROME

SPORTFIX inlet box, ROME model

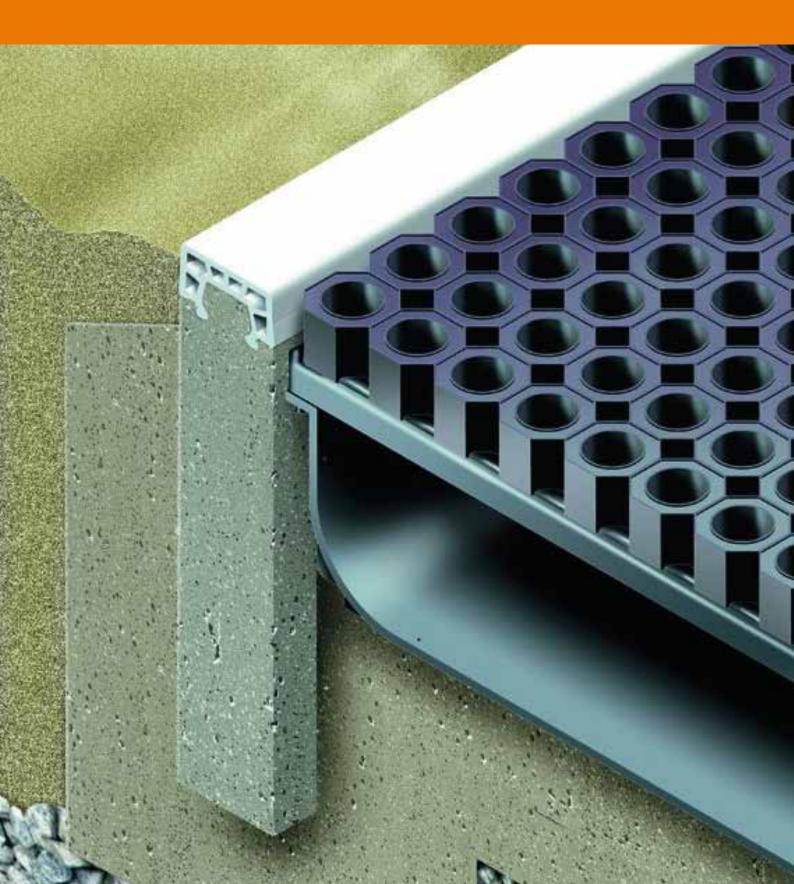




Туре	Length	Width	Height	Weight	Product
	mm	mm	mm	kg	code
Trash box type ROME with slotted grating, galvanised for artificial turf from 6 to 18 mm height	500	160	505	6,2	7850

SPORTFIX®Soft kerbs

Used for edging sand pits, sand traps, shot-putting facilites and other sports areas. Rubber cushioned capping minimises risk of injury to athletes.





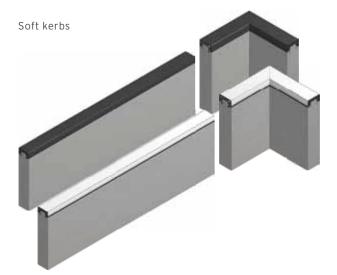
At a glance

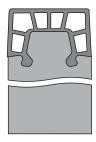
- Available in black and white
- Different heights and corner elements available
- Rubber cushion made of EPDM and air cushions
- inside to mimise the risk to athletes

SPORTFIX®Soft kerbs

SPORTFIX Soft kerbs

SPORTFIX soft kerbs with rubber padding are used as boundaries for jumping pits and sand pits, and to define outside edge of a running track. They are also used for permanent delineation of separate areas in sports grounds. The rubber padding protects sportsmen and children from serious injury if they fall. SPORTFIX soft kerbs are made from fibre-reinforced concrete with a 60 mm wide and 30 mm high white or black rubber padding made from ethylene propylene diene monomer (EPDM). This material is temperature resistant from - 30 °C to + 100 °C and extremely flexible. The padding considerably reduces the risk of injury to sportsmen and children. SPORTFIX soft kerbs are available in heights ranging from 200 to 400 mm and can be shortened if required. Matching angle pieces ensure precision corner joints.



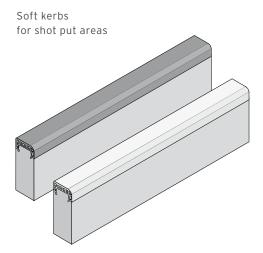


Туре	Length	Width	Height	Weight	Product
	mm	mm	mm	kg	code
white	1000	60	200	24,0	7200
white	1000	60	250	30,0	7201
white	1000	60	300	36,0	7202
white	1000	60	400	49,0	7203
white	500	60	400	24,5	7204
Angle pieces, white	250/250	60	300	16,4	7208
Angle pieces, white	250/250	60	400	21,5	7209
black	1000	60	200	24,0	7220
black	1000	60	250	30,0	7221
black	1000	60	300	36,0	7222
black	1000	60	400	49,0	7223
black	500	60	400	24,5	7224
Angle pieces, black	250/250	60	300	16,4	7228
Angle pieces, black	250/250	60	400	21,5	7229

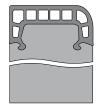
SPORTFIX[®]Soft kerbs for shot put areas

SPORTFIX Soft kerbs for shot put areas

For shot put areas we recommend wider SPORTFIX soft kerbs. The design and materials are the same as the soft kerbs for jumping pits and sand pits. The SPORTFIX soft kerb rubber padding for shot put areas is 100 mm wide and 50 mm high. The 250 mm high soft kerb is available in white or black.



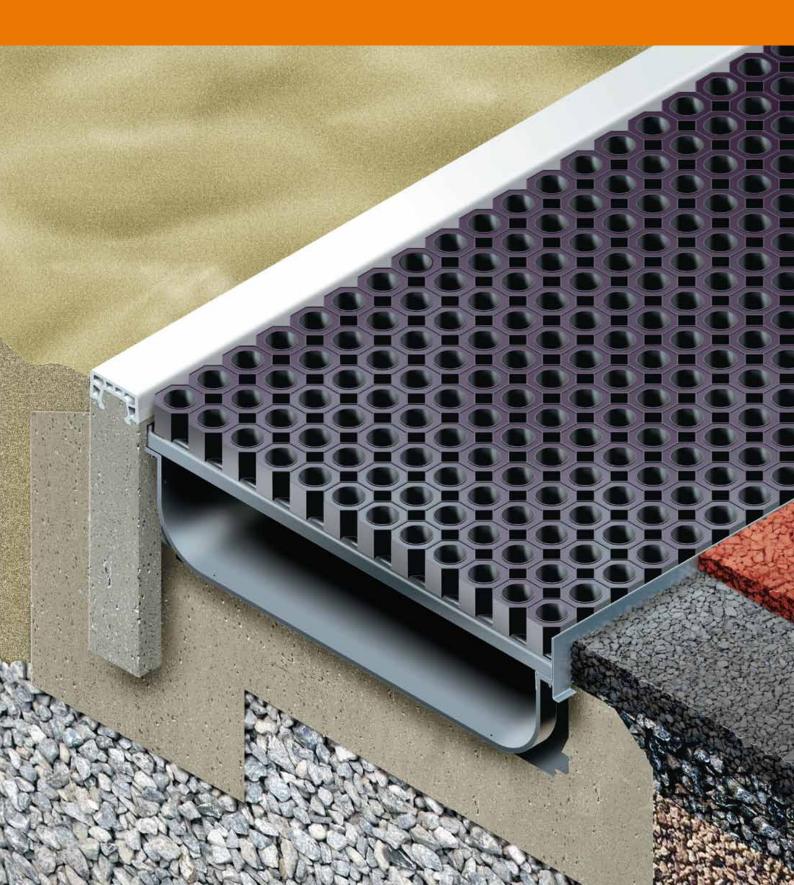
outside inside



Туре	Length mm	Width mm	Height mm	Weight kg	Product code
black	1000	100	250	53,0	7232
white	1000	100	250	53,0	7237

SPORTFIX[®]Sand traps

Prevents athletes from spreading sand on to the running track. Allows different sand pit sizes according IAAF guidelines.





At a glance

- ☑ base section made of PE-PP
- expanded metal grating and rigidly mounted rubber
- mat on top $ec{\mathbf{M}}$ Single and double width installation possible

CONCETLASTED TRAVALET

SPORTFIX[®]Sand traps

SPORTFIX Sand traps

FASERFIX sand traps prevent sportsmen from spreading sand onto the adjacent running track when they are leaving sand pits. Sand can cause damage to synthetic surfaces. The lower sections of the SPORTFIX sand traps are made from polypropylene. They are 500 mm wide and 500 or 1000 mm in length. Provision for a DN 100 connection is prefabricated.

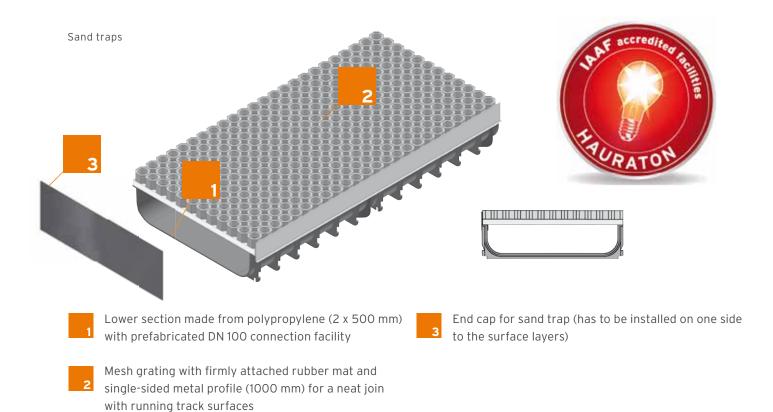
The SPORTFIX sand traps are fitted on one side with a metal profiled edge. This profile allows a neat join to an adjoining running track surface. The sand traps are supplied complete with a mesh grating and fixed rubber mat. Galvanised end walls are also available as accessories. SPORTFIX sand traps can be installed singly or as a double row. When sand traps are installed in two rows, the result is a protected area 1 m in width around the jumping pit. In accordance with the latest IAAF Competition Rules 2009 a width of between 2.75 and 3.0 m must be maintained for the long jump area. The area may be even wider, in which case it can be delineated simply for competitions using tape.

The IAAF Technical Manual 2008 stipulates that the long jump area must have a minimum width of 2.75 m, and must be between 7 m and 9 m in length. It goes without saying that SPORTFIX sand traps and soft kerbs conform to these specified dimensions.





SPORTFIX[®]Sand traps



Jumping pit with sand trap 2.88 m x 8.88 m in accordance with IAAF specifications

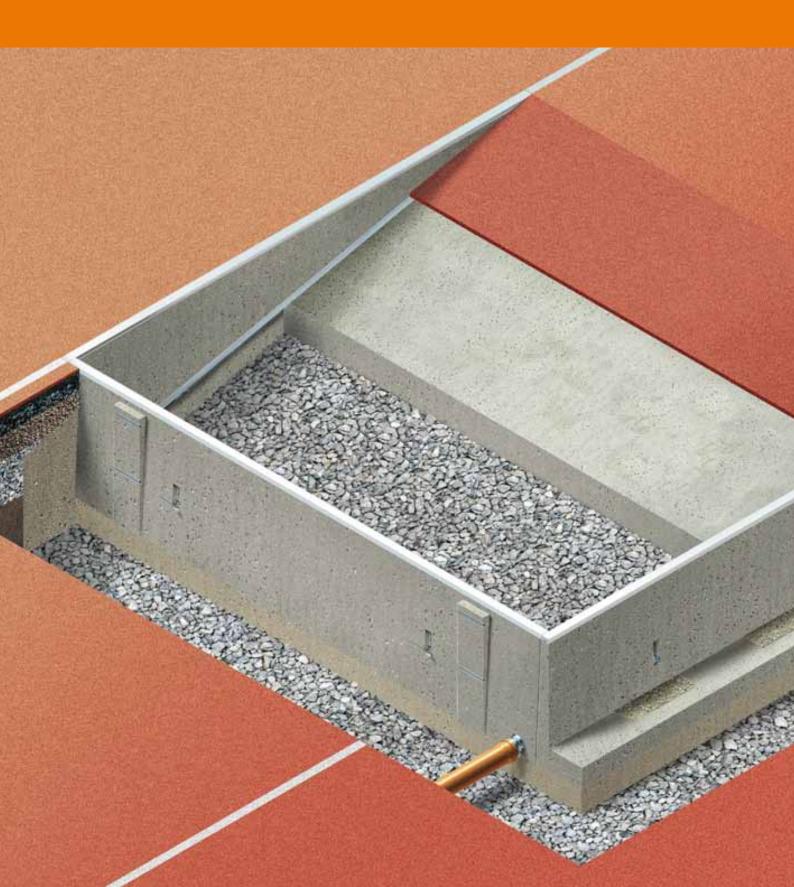
Soft kerbs: 20 x 1 m + 4 x 0.5 m + 4 corner pieces 0.25 m x 0.25 m SPORTFIX sand trap: "Single" 22 x 1 m SPORTFIX sand trap: "Double" 45 x 1 m + 2 x 0.5 m

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Туре	Length mm	Width mm	Height mm	Weight kg	Product code
Sand trap 2 x 500 mm	1000	500	163	16,8	7740
Sand trap	500	500	163	8,8	7745
End cap	-	500	175	0,5	7248

SPORTFIX[®]Water jump kit

Water jump for steeplechases according IAAF requirements. 3-parted construction for quick and easy installation with EPDM protection profiles.





At a glance

- Supplied in 3 sections
- ✓ upper edges provided with EPDM soft profiles to avoid injuries
- ☑ adjustable, galvanised rail on both sides

SPORTFIX[®]Water jump kit

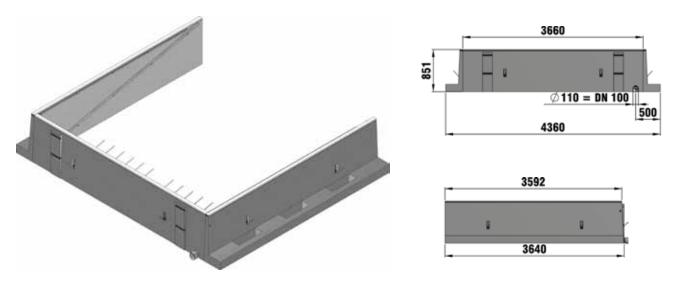
SPORTFIX Water jump assembly kit

The SPORTFIX Water jump kit consists of three prefabricated sections of reinforced concrete. This enables a water jump kit to be created in accordance with international requirements rapidly, easily and cost-effectively. Its dimensions comply with DIN 18035, Part 8 and IAAF competition rules.

The upper edges of the elements are bordered with white soft profiles. The DN 70 outlet enables the water jump kit to be emptied. The base of the water jump kit is concreted by the customer. The concrete tamper edge, on the other hand, can be adjusted accordingly.



Water jump kit



Туре	Length	Width	Height	Weight	Product
	mm	mm	mm	kg	code
Water jump kit, 3-piece, with white soft profiles, DN 70 plastic outlet, steel connecting piece and galvanised steel pull-off rails	3592	3660	851	2200,0	7262







SPORTFIX[®] Distribution shafts

Distribution pits for electrical cables (type E) or water conduits (type W) For big sports events or concerts with a lot of communication cables or for watering the lawn.







SPORTFIX[®]Distribution shafts, Type E

SPORTFIX Distribution shafts

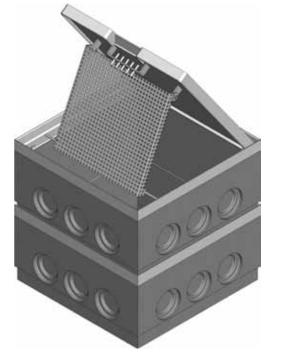
SPORTFIX Type E distribution shafts accommodate electrical and communications cables, while SPORTFIX Type W distribution shafts are designed for fittings, measuring instruments and water pipes on sports grounds. SPORTFIX distribution shafts are made from fibrereinforced concrete. Their upper edges are protected by a continuous steel frame.

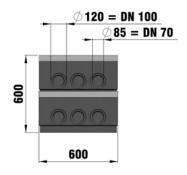
SPORTFIX Type E distribution shaft

The SPORTFIX Type E distribution shaft consists of two sections and offers the opportunity to connect DN 70 or DN 100 conduits to any side. Its grating is made from galvanised tread plate and can support the weight of a vehicle. It is provided by the customer with a suitable finish surface. This grating is equipped with a carrying handle, bracket for fixtures and cable strain relief system. The base of the pit is created by the customer. The stacking elements can be placed on top of one another until the required height is reached.

Two piece, grating can support the weight of a vehicle and features a carrying handle, bracket for fixtures and cable strain relief system.







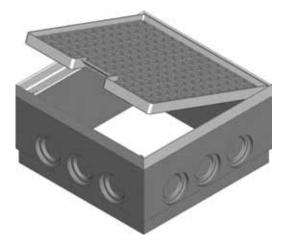
Туре	Length mm	Width mm	Height mm	Weight kg	Product code
E	600	600	600	192,0	7450
Stacking element	600	600	300	58,1	7400

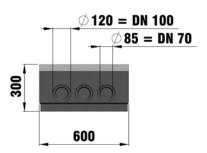
SPORTFIX[®]Distribution shafts, Type W

SPORTFIX Type W distribution shafts

The SPORTFIX Type W distribution shaft comes as one single piece. It likewise allows DN 70 or DN 100 conduits to be connected to any side. The galvanised tread plate grating can be walked on and also features a carrying handle. The base of the pit is created by the customer. The stacking elements can be placed on top of one another until the required height is reached.

One-piece; grating has a carrying handle and can support the weight of a vehicle.



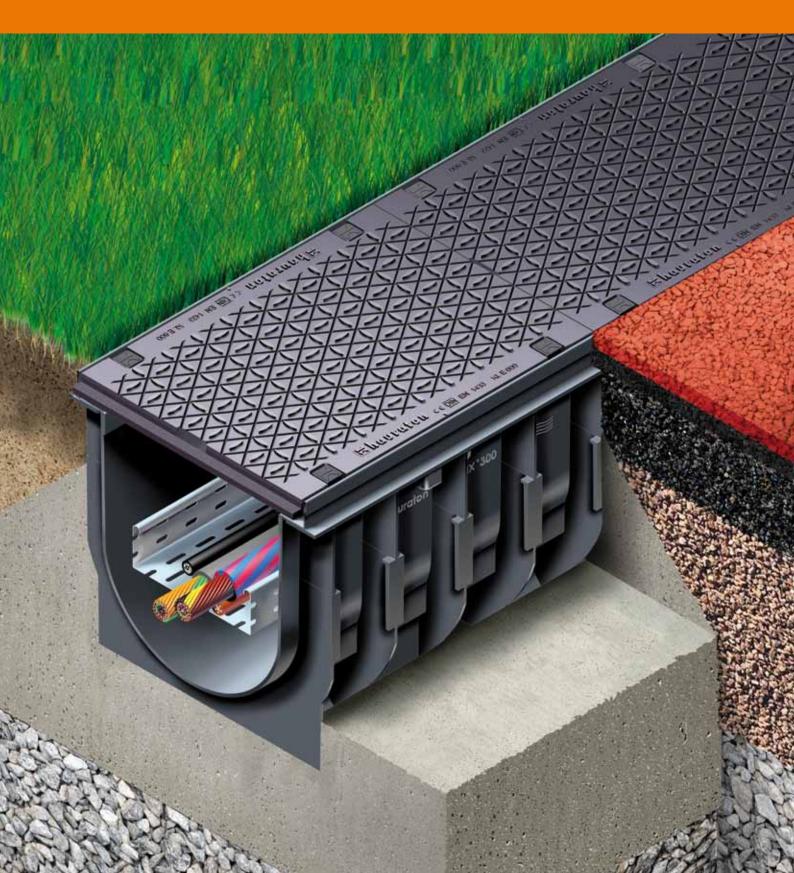


Туре	Length mm	Width mm	Height mm	Weight kg	Product code
W	600	600	300	98,0	7460
Stacking element	600	600	300	58,1	7400

SERVICE Channels

Cable management system

For the safe management of cables at stadiums, race tracks, industrial applications and telecommunication







At a glance

- ☑ channels made of PE-PP or fibre reinforce concrete
- ☑ Robust, non-slip ductile iron or bulb plate covers
- ✓ Patented SIDE-LOCK boltless locking system
- Securely locked covers but still allowing quick

access to cables

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SERVICE Channels

HAURATON SERVICE Channels for sports venues and industrial applications

Nowadays, an essential requirement for any venue hosting national or international events is the safe management of cables needed to facilitate multi-media communication and TV broadcasts from the world's television companies. HAURATON have gained invaluable expertise supplying their systems in to prestigious stadiums in many parts of the world. The RECYFIX SERVICE CHANNELS are available in five different channel sizes ranging from 100mm to 300mm.





HAURATON SERVICE CHANNELS at Wembley Stadium in the UK



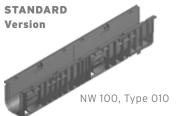
At Yas Marina Circuit in Abu Dhabi the HAURATON SERVICE CHANNELS are used in the pit lane



As a cable duct a steel construction which fits in the channel is available

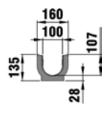
RECYFIX[®]SERVICE Channels

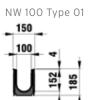
RECYFIX®SERVICE Channels - Cable ducts











NW 100 Type 01



163

100

NW 100 Type 010



160 100

NW 300 Type 01

420

300

NW 100 Type 010

6

NW 150 Type 01

NW 200 Type 020

	Length mm	Width mm	Height mm	Weight mm	Product code
RECYFIX SERVICE CHANNEL STANDARD 100 Type 01	1000	160	135	2.5	40200
RECYFIX SERVICE CHANNEL STANDARD 100 Type 010	1000	160	185	3.0	40242
RECYFIX SERVICE CHANNEL SUPER KS 100 Type 01	1000	160	153	5.3	41100
RECYFIX SERVICE CHANNEL SUPER KS 100 Type 010	1000	160	203	5.4	41142
RECYFIX SERVICE CHANNEL SUPER KS 150 Type 01	1000	210	210	5.3	40500
RECYFIX SERVICE CHANNEL SUPER KS 200 Type 020	1000	256	253	4.9	41344
RECYFIX SERVICE CHANNEL SUPER 300 Type 01	1000	420	416	14.8	40900

RECYFIX[®]SERVICE Channels - Covers

Solid cover galvanised



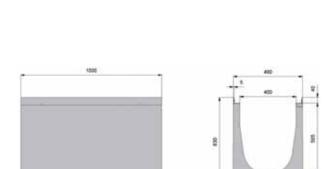
	Length mm	Width mm	Height mm	Weight mm	Product code
STANDARD 100 Solid cover, galvanised, cl. A 15	1000	136	22	3.1	40271
SUPER KS 100 Solid cover, galvanised, cl. C 250	1000	149	20	5.5	8191
SUPER KS 100 Solid ductile iron cover, cl. E 600	500	149	20	4.7	8962
SUPER KS 150 Solid ductile iron cover, cl. E 600	500	199	20	7.0	11270
SUPER KS 200 Solid ductile iron cover, cl. E 600	500	249	20	8.7	12270
SUPER 300 Solid ductile iron cover, cl. E 600	500	377	40	21.5	4262

FASERFIX®SERVICE Channels

LANDSCAPING

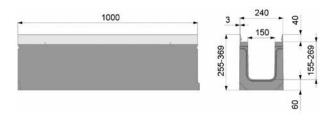
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FASERFIFIX®SERVICE Channels - Cable ducts
NW 150, Type 01E
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	Length mm	Width mm	Height mm	Weight mm	Product code
FASERFIX SERVICE CHANNEL SUPER KS 100 Type 05	1000	160	184	37,0	8041
FASERFIX SERVICE CHANNEL SUPER KS 100 Type 010	1000	160	214	40,0	8042
FASERFIX SERVICE CHANNEL SUPER KS 100 Type 020	1000	160	274	48,0	8044
FASERFIX SERVICE CHANNEL SUPER 150 Type 01E	1000	240	255	80,0	2105
FASERFIX SERVICE CHANNEL SUPER 150 Type 010E	1000	240	309	93,5	2106
FASERFIX SERVICE CHANNEL SUPER 150 Type 020E	1000	240	369	105,0	2107
FASERFIX SERVICE CHANNEL SUPER 200 Type 01E	1000	290	305	104,5	3105
FASERFIX SERVICE CHANNEL SUPER 200 Type 010E	1000	290	350	113,5	3106
FASERFIX SERVICE CHANNEL SUPER 200 Type 020E	1000	290	400	124,5	3107
FASERFIX SERVICE CHANNEL SUPER 300 Type 01E	1000	390	415	150,0	4105
FASERFIX SERVICE CHANNEL SUPER 400 Type 01	1000	490	540	246,0	4111
FASERFIX SERVICE CHANNEL SUPER 400 Type 01H	1000	490	630	265,0	4116

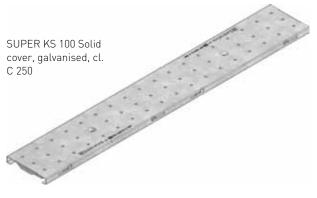




AQUA

NW 400, Type 01H

RECYFIX®SERVICE Channels - Covers





	Length mm	Width mm	Height mm	Weight mm	Product code
SUPER KS 100 Solid cover, galvanised, cl. C 250	1000	149	20	5.5	8191
SUPER KS 100 Solid ductile iron cover, cl. E 600	500	149	20	4.7	8262
SUPER KS 100 Solid ductile iron cover, cl. E 600, KTL	500	149	20	4,7	8962
SUPER 150 Solid ductile iron cover, cl. E 600	500	227	40	10,7	2262
SUPER 200 Solid ductile iron cover, cl. E 600	500	279	40	13,4	3262
SUPER 200 Solid ductile iron cover, cl. E 600, KTL	500	279	40	13,6	3962
SUPER 300 Solid ductile iron cover, cl. E 600	500	377	40	21.5	4262
SUPER 400 Solid ductile iron cover, cl. E 600	500	477	440	32,0	4362



HAURATON GMBH & CO. KG

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