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**Product Selector** 

# Public Realm & Shared Space

Linear drainage systems for environments that require aesthetic design and safe, durable solutions.



### World Leader

#### Reliable Performance

A world leader in the manufacture of modular surface drainage systems, HAURATON drainage products have been supplied onto major projects within international markets for over sixty-five years.

We developed our first linear drainage system in 1956. Since that time the HAURATON brand has become known around the world as a benchmark for quality, reliability, durability and service.



HAURATON has environmentally sound production facilities, processes and procedures.

RECYFIX systems are manufactured from recycled Polypropylene (PP), which is 100% recyclable following life-time use.

HAURATON drainage systems can assist in the assignment of credits based on the BREEAM and LEED rating systems. HAURATON maintains an Environmental Management System according to DIN EN ISO 14001:2015

Refer to HAURATON for further information.









# Surface Drainage

#### **Product Range**

HAURATON offers a wide range of external surface drainage systems suitable for a variety of project applications, including residential, commercial, municipal, industrial, military, transport and major infrastructure projects.

**FASERFIX** - Strong and durable drainage channels in Fibre-Reinforced Concrete (FRC).

**RECYFIX** - A robust, high-performance range in corrosion-resistant composite materials (PP, PA-GF). HAURATON is the innovator and market-leader in this field and provides the widest range of commercial-grade composite channel systems available.

**SPORTFIX**, **DACHFIX**, **DRAINFIX CLEAN** and **RECYFIX TRAM** are specialist ranges available for unique applications.

Systems can be supplied with a variety of functional, decorative and HeelSafe gratings or with discreet 'longitudinal' slot channel designs, for load-class applications from A 15kN up to F 900kN, offering significant choice and flexibility.

With superior design and engineering, HAURATON sets the industry standard with high-quality, visually aesthetic and technically innovative products that meet project requirements and complement modern building and landscape design.

#### **Product Selectors**

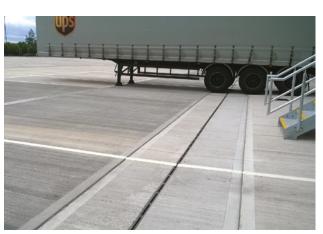
Our Product Selector's have been designed to provide industry professionals with a quick, simple and clear guide to choosing the appropriate HAURATON system to suit their project requirements.

Each Product Selector include's project applications with similar needs regarding loading and system performance:

- Roof Terraces, Balconies & Facades
- Public Realm & Shared Space
- Car Parks & Commercial
- Industrial
- Ultra-Heavy-Duty
- Airports
- Ports & Terminals











# Public Realm & Shared Space

Linear drainage systems for environments that require aesthetic design and safe, durable solutions.

#### **System Requirements**

'Public Realm & Shared Space' environments typically include the following characteristics:

- Light to medium loads; A 15 D 400 (wheel, static, impact and dynamic). Channels subject to occasional traffic by service vehicles; D 400 load often specified for these locations.
- Low to medium traffic flow (braking, turning and angled approach at low speed). Pedestrian use is often intensive.
- Varied wheel type and configuration (solid/smallwheeled, pnuematic, service vehicles with single-tyre/ multi-tyre/single-axle/double-axle).
- Systems required to be aesthetic, safe, durable and easy to maintain. HeelSafe grating designs often selected.
- Decorative and general surfaces (block paving, stone sets, granite, tiles, timber decking, resin surfaces, printed concrete, coloured asphalt etc).
- Systems with neat and discreet surface detail to complement contemporary design and accommodate a variety of finishes. Linear drainage often incorporated within landscape design. Radius installation to follow hard and soft landscape features.
- Shallow channel options for raised walkways and mezzanine floors.
- Corrosive environments dependent on location. Systems available with stainless steel gratings and edge-rails.

HAURATON systems included in this Product Selector meet and exceed the requirements for 'Public Realm & Shared Space' project applications.

#### **Typical Applications**

Projects where 'Public Realm & Shared Space' environments exist include:

- Parks
- Animal Housing
- Sports & Leisure
- Railway Platforms
- Entrances & Facades
- Government Buildings
- Footpaths & Cycle Paths Town Squares & Public Places
- Educational Facilities

\*HAURATON 'Public Realm & Shared Space' systems are not suitable for use on highways in locations that are subjected to fast moving traffic.



HAURATON systems with HeelSafe gratings are typically selected for use in public places.





### RECYFIX STANDARD

Lightweight, cost-effective and versatile, RECYFIX STANDARD is perfect for areas subject to heavy pedestrian use and occasional traffic by medium load vehicles.

**RECYFIX STANDARD** includes a visible edge detail for enhanced rigidity at the surface.

Available in nominal widths from 100mm to 300mm, and with a variety of 'lay-on' grating designs and materials, RECYFIX STANDARD provides a practical and economic option for linear drainage. Refer to product brochure.

#### **Key Features**

#### **Material**

■ Modified Polypropylene (PP) composite

#### Loading

System load rated to C 250 (EN 1433: 2002)

#### **Channel Widths**

■ 100, 150, 200 & 300 mm

#### **Channel Lengths**

■ 1.0m & 500mm (in some sizes)

#### **Grating Options**

- Lay-on design
- Load options ranging from A 15 C 250 (EN 1433: 2002)
- Variety of grating designs and material's available
- Refer to product brochure

#### **Channel Configuration**

- Constant-depth (same channel depth)
- Stepped-fall

#### **Edge Detail**

■ Integral polypropylene edge (visible on the surface)

















### **RECYFIX PRO**

A medium-duty system with practical design suitable for a variety of applications up to D 400 loading. When fitted with a composite grating, RECYFIX PRO is fully corrosion resistant, non-conductive and anti-static; reducing long-term maintenance costs and avoiding expensive earthing works.

RECYFIX PRO incorporates a discreet polypropylene edge-frame formed as part of the channel body structure, for improved rigidity and enhanced aesthetic appearance. The system is pre-assembled, lightweight and compact for quick and easy installation on site. Refer to product brochure for detailed information.

#### **Key Features**

#### Material

■ Modified Polypropylene (PP) composite

#### Loading

System load rated to D 400 (EN 1433: 2002)

#### **Channel Widths**

■ 100, 150, 200 & 300 mm

#### **Channel Lengths**

■ 1.0m & 500mm (selected depths)

#### **Grating Options**

- Inlay design
- Load options ranging from A 15 D 400 (EN 1433: 2002)
- Variety of grating designs and material's available
- Refer to product brochure

#### **Channel Configuration**

- Constant-depth (same channel depth)
- Stepped-fall

#### **Edge Detail**

- Polypropylene edge-frame
- Integral part of channel body structure











# **RECYFIX PLUS**

A medium-duty system selected for use when durability and aesthetics are important project requirements. **RECYFIX PLUS** incorporates a neat and discreet steel edge-rail that accommodates all surface finishes and complements contemporary features in modern buildings and landscape design. This design feature also provides improved rigidity and protection at the channel edge.

**RECYFIX PLUS** is fitted with a range of 'lay-on' gratings in a variety of materials, designs and loading options up to D 400. Refer to product brochure for detailed information.

#### **Key Features**

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#### Material

■ Modified Polypropylene (PP) composite

#### Loading

System load rated to D 400 (EN 1433: 2002)

#### **Channel Widths**

■ 100, 150, 200 & 300 mm

#### **Channel Lengths**

■ 1.0m & 500mm (selected depths)

#### **Grating Options**

- Lay-on design
- Load options ranging from A 15 D 400 (EN 1433: 2002)
- Variety of grating designs and material's available
- Refer to product brochure

#### **Channel Configuration**

- Constant-depth (same channel depth)
- Stepped-fall

#### **Edge Detail**

Steel edge-rail fitted

#### Two options:

- Galvanised steel (DX51D+Z275-MA-C)
- Austenitic stainless steel (AISI Grade 304; EN CNS 1.4301)
- Neat, discreet, rigid and aesthetic













### **SLOTTED CHANNEL**

SLOTTED CHANNEL achieves high standards in quality and design, combining both aesthetic appeal and practical performance. The discreet linear surface detail complements modern building architecture and external landscape design, achieving a simple, safe and durable installation.

With high intake capacity through the surface slot opening, SLOTTED CHANNEL provides efficient and effective drainage of surface water in locations around the world that experience the highest rainfall intensities. Test data available on request. The SLOTTED CHANNEL system includes an access cover accessory for quick, simple cleaning and maintenance. Refer to product brochure for detailed information.

#### **Key Features**

#### **Material**

- Modified Polypropylene (PP) composite
- Fibre-reinforced concrete

#### Loading

Channel body load rated to D 400 / E 600 (EN 1433: 2002)

#### **Channel Widths**

■ 100, 150 & 200 mm

#### **Channel Heights**

- Refer to Slotted Channel brochure
- Slotted channels can also be custom-made to suit most site requirements

#### **Channel Lengths**

■ 1.0m & 500mm (selected depths)

#### **Slotted Cover Options**

- Load options ranging from A 15 E 600 (EN 1433: 2002)
- A-symmetric cover design
- Slot height options of 105mm (UK)
- Slot height options of 105mm, 160mm & 200mm (international)
- Galvanised steel (DX51D Z275)
- Austenitic stainless steel (AISI Grade 304, 316, other)
- Refer to product brochure

#### **Channel Configuration**

- Constant-depth (same channel depth)
- Stepped-fall

#### **Edge Detail**

- Slot width options in 10mm (UK)
- Slot width options in 10, 12, 14 & 18 mm (international)







\*The A-symmetric slotted cover can be used along building facades, walls and landscape features at ground level.









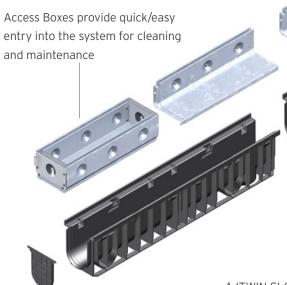


### **SLOTTED CHANNEL**

Further information regarding intake capacity is available on request.



(with rainfall intensity at 50 mm/hr)



A 'TWIN SLOT' slotted cover is also available to provide an alternative surface detail with aesthetic appeal and efficient intake performance.











### RECYFIX MONOTEC

Designed and installed as a single monolithic unit, RECYFIX MONOTEC is quick and easy to install and provides a stable, safe and secure surface environment for users. RECYFIX MONOTEC is lighter and has higher drainage capacity compared with alternative mineral-based systems (for equivalent channel sizes and installed dimensions).

Manufactured from reinforced Polypropylene (PP) composite, channel units are strong, durable and UV-stable, with high impact, chemical and corrosion resistance for low-cost maintenance during life-time use. Refer to product brochure for detailed information.

#### **Key Features**

#### Material

■ Reinforced Polypropylene (PP) composite

#### Loading

System load rated to D 400 (EN 1433: 2002)

#### **Channel Widths**

■ 100 & 200 mm

#### **Channel Lengths**

1.0m

#### **Grating Options**

- Monolithic channel with integral grating
- D 400 (EN 1433: 2002)
- Slotted grating design (FIBRETEC style)
- Reinforced Polypropylene (PP) composite

#### **Channel Configuration**

- Constant-depth (same channel depth)
- Stepped-fall

#### **Edge Detail**

Monolithic design; channel edge and grating combined

\*Not suitable for E 600kN and F 900kN load applications subject to traffic by forklift trucks and HGV's.













### **FASERFIX KS**

Cast from fibre-reinforced concrete, **FASERFIX KS** is a strong and durable 'general-purpose' channel system designed for use in a variety of applications (usually C 250 - E 600).

**FASERFIX KS** has thicker sidewalls (30mm) compared with alternatives. A metal edge-frame (galvanised or stainless steel) cast deep within the channel body achieves a rigid and discreet edge-detail for extra strength and enhanced aesthetics. Gratings are fixed into position with a 10-point locking system (SIDELOCK plus central bolt and bar arrangement) for added safety, stability and security. Refer to product brochure for detailed information.

#### **Key Features**

#### Material

■ Fibre-reinforced concrete

#### Loading

- Channel body load rated to F 900 (EN 1433: 2002)
- System typically installed in E 600 load environments
- Suitable for F 900 environments (light traffic only)
- Refer to FASERFIX SUPER for F 900 environments (heavily trafficked)



■ 100, 150, 200 & 300 mm

#### **Channel Lengths**

■ 1.0m & 500 mm (selected depths)

#### **Grating Options**

- Inlay design
- Load options ranging from A 15 F 900 (EN 1433: 2002)
- Variety of grating designs and material's available (over 20)
- Refer to product brochure

#### **Channel Configuration**

- Constant-depth (same channel depth)
- Built-in fall (150, 200, 300)
- Stepped-fall

#### **Edge Detail**

Two options:

- Galvanised steel S275J263+Z
- Stainless steel CNS 1.4301
- Neat, discreet, rigid and aesthetic

\*When gratings are fixed with locking bolts/bars, this system is especially resilient to dynamic forces caused by the turning/twisting action of wheels.















### RECYFIX HICAP F SLOT CHANNEL

Manufactured from high-grade modified Polypropylene (PP) composite, RECYFIX HICAP F SLOT CHANNEL is a highcapacity linear drainage system used to provide efficient and cost-effective drainage and attenuation within extensive hard surface areas. Refer to product brochure for detailed information.

#### **Key Features**

#### Material

- Modified Polypropylene (PP) Composite
- Some components in Polyamide (PA-GF)

#### Loading

System load rated to F 900 (EN 1433: 2002)

#### **Channel Sizes**

HICAP F 1000, 2000, 3000, 5000, 8000 & 10000

#### **Channel Lengths**

■ 1.0m & 1.145m (RECYFIX HICAP F 10000)

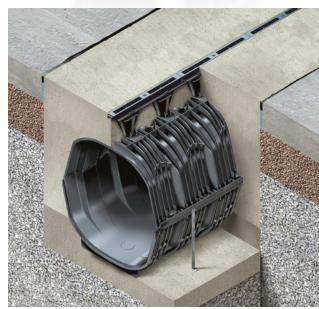
#### **Grating Options**

- Retained grating design (non-removable)
- D 400 & F 900 (EN 1433: 2002)
- Spheroidal ductile iron GJS 500-7 'EN1563' (KTL 'Cathodic Dip' Coated)
- Slot 14mm
- Slot 28mm
- Mesh 13/28mm
- Slot 6mm

#### **Channel Configuration**

- Constant-depth (same channel depth)
- Stepped-fall
- \*This system is especially resilient to dynamic forces caused by the turning/twisting action of wheels.













### **SHALLOW CHANNELS**

The core range of RECYFIX and FASERFIX grated channel systems (A 15 - E 600) are available in shallow channel options, with a variety of shallow depth dimensions no greater than 115mm deep (see below).

Shallow channel options are generally 100mm wide (other channel widths are available in reduced height dimensions). Shallow channels can be used in most applications where there is a depth restriction. When used in raised concrete structures, channels should be installed with sealed joints and above a Damp Proof Membrane (DPM). Refer to product brochure for detailed information.

#### **Key Features**

#### Material

- Modified Polypropylene (PP) composite
- Fibre-reinforced concrete

#### Loading

- Depends on system selected
- A 15 E 600 (EN 1433: 2002)

#### **Channel Widths**

- 100 mm
- Shallow channels also available in wider sizes

#### **Channel Heights**

- RECYFIX STANDARD: 60, 80 & 100 mm
- **RECYFIX PRO**: 75, 95 & 115 mm **RECYFIX PLUS**: 60, 80 & 100 mm
- RECYFIX NC: 75 mm
- **FASERFIX KS**: 80, 100 & 110 mm \*Overall height dimension provided

#### **Channel Lengths**

1.0m

#### **Grating Options**

- Lay-on or inlay design
- Load options ranging from A 15 E 600 (EN 1433: 2002)
- Variety of grating designs and material's available
- Refer to product brochure

#### **Channel Configuration**

Constant-depth (same channel depth)

#### **Edge Detail**

- Integral polypropylene edge (visible on the surface)
- Galvanised steel S275J263+Z
- Stainless steel CNS 1.4301
- Neat, discreet, rigid and aesthetic











### **DRAINFIX CLEAN**

**DRAINFIX CLEAN** linear drainage 'water treatment' system is a cost-effective, ecological, efficient and immediate solution for the draining, collection and treatment at source of storm water run-off.

The system contains CARBOTEC 60, a carbonate-rich filter substrate through which the cleansing of stormwater occurs, for safe and hygienic use as sanitary water (toilet flushing) and irrigation of soft-landscaping. **DRAINFIX CLEAN** is very effective when used in densely populated areas (streets, parking areas, service yards, landscape projects).

#### **Key Features**

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#### **Material**

- RECYFIX channels in modified Polypropylene (PP)
- FASERFIX channels in fibre-reinforced concrete
- CARBOTEC 60 filter substrate (high carbonate content)

#### Loading

- Polypropylene (PP) channels load rated to D 400
- Fibre-reinforced concrete channels load rated to F 900 (EN 1433: 2002)

#### **Channel Widths**

300, 400 & 500 mm

#### **Channel Lengths**

1.0m

#### **Grating Options**

- Inlay design
- Slotted grating
- D 400, E 600 & F 900 (EN 1433: 2002)
- Spheroidal ductile iron GJS 500-7 'EN1563'
- KTL 'cathodic dip' coating (optional)

#### **Channel Configuration**

Constant-depth (same channel depth)

#### **Edge Detail**

Three options:

- Polypropylene (PP)
- Galvanised steel S275J263+Z
- Spheroidal ductile iron GJS 500-7 'EN1563'











### **CUSTOMISED DRAINAGE SOLUTIONS**

DRAIN

HAURATON provides **CUSTOMISED DRAINAGE SOLUTIONS** to meet very specific requirements for unique and innovative applications. A bespoke approach offers total flexibility regarding channel width, depth, configuration, edgedetail, materials, inlet/grating design, type/location of outlets and other special system characteristics.

CUSTOMISED DRAINAGE SOLUTIONS provide the perfect design when project needs require high-quality aesthetics with superior and precise performance. Designs include specialist grated and slotted channel systems. Refer to product brochure for detailed information.

#### **Key Features**

#### Material

- Corten steel
- Galvanised steel
- Stainless steel (various grades)
- Other specialist materials to suit project needs

#### Loading

- Generally A 15 D 400 (EN 1433: 2002)
- System designed to meet load requirements

#### **Channel Widths**

Sized to meet hydraulic requirements

#### **Channel Lengths**

- Variable
- Modular sections fabricated to meet specific configurations
- Polygon or radial designs available

#### **Grating/Cover Options**

- Designed to meet performance and load requirements (EN 1433:2002)
- Variety of designs, materials, colours and finishes available
- Refer to product brochure

#### **Channel Configuration**

- Constant-depth (same channel depth)
- Built-in fall

#### **Edge Detail**

- Designed to meet project requirements
- Neat, discreet, rigid and aesthetic













# **UNIQUE DESIGNS**

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Customised channel designs for special applications (entrance ways, public spaces, roof terraces, balconies, facades, others).



































### **HAURATON GRATINGS**

HAURATON offers a variety of grating designs supplied as standard with the range of linear drainage systems, including mesh, slotted, longitudinal, perforated and HeelSafe. HAURATON also provides unique, innovative 'award-winning' designs such as GUGI-MESH and FIBRETEC gratings.

Grating materials include spheroidal ductile iron, galvanised steel, stainless steel and specialist composites such as 'glass-reinforced polyamide' (PA-GF). DECORATIVE and COLOURED gratings provide an extra dimension to the project design.

#### Durability

HAURATON gratings are designed for long-term durability and low maintenance.

Channel systems are often installed in corrosive environments.

FIBRETEC and GUGI MESH gratings are supplied in glass-reinforced polyamide (PA-GF), a high-performance composite that is highly corrosion resistant. Once in place, gratings will not corrode (no oxidation) and will maintain their aesthetic appearance for the projects life.

For extra durability and design flexibility, selected ductile iron gratings can be supplied with a galvanised coating.

Powder coatings can also be arranged on request to provide additional colour options and enhanced resistance (min. order quantity/extended lead time may apply).







## FIBRETEC GRATINGS

Bring colour, bring life to projects.

HAURATON's range of FIBRETEC gratings in Glass-Reinforced Polyamide composite combines superior performance with enhanced aesthetics, bringing longevity and life to projects.

#### **Benefits**

FIBRETEC gratings have the following benefits:

- UV stable
- HeelSafe (9mm opening)
- Corrosion resistant; no oxidation
- Anti-static and none conducting
- High resistance to chemicals, fuels, salts etc

\*Compatible with **RECYFIX PRO** and **FASERFIX KS** systems

Readily available in standard colours:

- Fern
- Sand
- Stone
- Black
- \*Other standard colours also available.

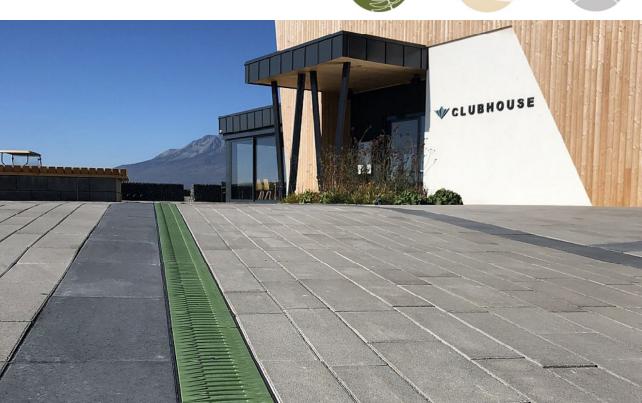














INFILTRATE



# METROPOLIS GRATINGS

Inspired by Art Deco design for use on modern projects.

Compatible with **RECYFIX PRO** and **FASERFIX KS** systems











### **KTL COATING**

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HAURATON provides selected ductile iron gratings with a 'KTL' coating.

The coating is applied to the grating using a 'cathodic dip' process.

#### **Benefits**

- High durability and weather resistance
- Protects against corrosion and oxidation
- High resistance to chemicals, acids, fuels and salts
- Complies with environmental standards
- No risk to users when applied (non-hazardous)
- Paintable

\*\*If ductile iron gratings are preferred, specifiers are advised to select HAURATON gratings with a 'KTL' coating as standard, to maintain the aesthetic appeal of the installation.







York Station - 2017

#### York Railway Station, United Kingdom

**RECYFIX STANDARD** system with Ductile Iron Slotted Gratings with 'KTL' coating applied.

The installation looks as good today as it did ten years ago.

#### **Rusty Gratings!**

Ductile iron gratings may be subject to oxidation (a natural process) when channels are installed in locations that may not be trafficked (or trafficked infrequently).

Water-based coatings provide only superficial and cosmetic protection, so oxidation may occur at some point in the future.





# **Total Support**

#### **Projects Team**

HAURATON provides close support to ensure drainage design, specification and installation is quick, efficient and cost-effective.

A team of regional, specification and project managers are available to assist industry professionals at every stage of the construction process. Refer to HAURATON for contact details (www.hauraton.com).

A multinational company, HAURATON has production facilities, subsidiary offices, technical engineers and partners located in many countries and regions of the world.

HAURATON has the knowledge, experience and resources to manage and support all projects successfully, regardless of location.

#### **Design Service**

HAURATON offers a comprehensive design service for all product ranges. This is available free of charge and without obligation.

Our approach is to provide innovative 'value-engineered' designs to achieve the most cost-effective drainage solution for the benefit of all parties.

Design proposals can be provided within 24 - 48 hours, depending on the size of the project. Information offered includes:

- Hydraulic calculations for each channel run
- System configuration drawings
- Parts list schedules
- Product dimension drawings
- System installation drawings
- Product and material technical datasheets
- Other technical and support information

Feel free to contact us should you require assistance.







# **Design Software**

#### **Hydraulic Design Software**

HAURATON provides a comprehensive design service, which is free of charge.

Our channel drainage configurations are designed and sized using 'hydraulic design software' specifically developed for HAURATON systems.

The formula used within the software is based on that determined by Gauckler-Manning-Strickler. Accuracy has been verified by physical testing of HAURATON systems within a hydraulic discharge test flume, replicating and evaluating hundreds of flow scenarios.

HAURATON 'hydraulic design software' has been used successfully in-house by our technical personnel and partners for over 30 years with total reliability.

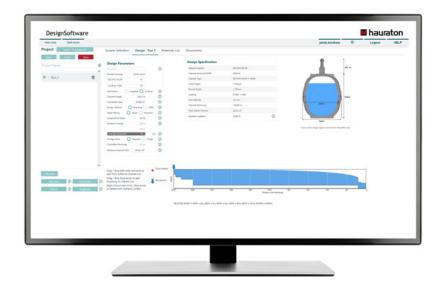
#### **HAURATON DesignSoftware**

User-friendly and free-of-charge, our web-based application 'DesignSoftware' provides construction industry professionals with quick, simple hydraulic analysis, channel sizing, project design and product specification for the company's core range of surface drainage systems (for landscape, commercial and civils projects) whilst working on their own desk-top and lap-top computers.

HAURATON 'DesignSoftware' provides engineers with the flexibility to create their own drainage designs, with just three clicks to a hydraulic calculation.

Follow the link below to register and use the software:

https://hydraulicdesign.hauraton.com/register/







# **Quality Assurance**

#### **High Standards**

HAURATON products and procedures bring quality assurance.

The company operates in accordance with EN ISO 9001: 2015. Production within modern, mechanised facilities in Europe is carefully monitored and controlled to achieve consistent product quality.

HAURATON drainage channels have been independently tested for load capacity and watertightness in accordance with the European Standard EN 1433: 2002. Systems are CE marked for quality assurance.

#### **Proven Performance**

Supplied for over sixty-five years and thirty years respectively, **FASERFIX** and **RECYFIX** systems have proven performance, having been used successfully on major projects around the world. Individual project case studies are available from HAURATON.

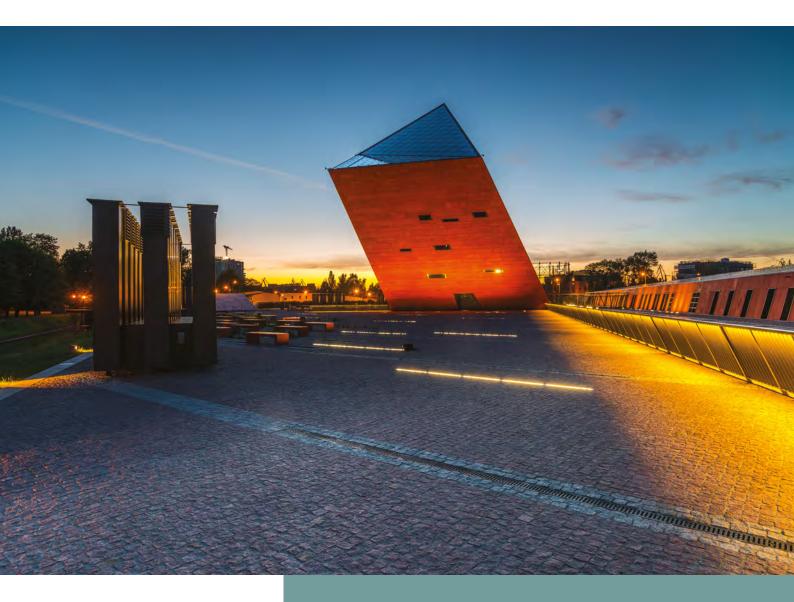
HAURATON has a reputation for products of the highest quality, durability and reliability.







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