

**PRODUCT** SELECTOR

# **CAR PARKS & COMMERCIAL**

Linear drainage systems for environments that require durable performance for frequently trafficked areas.



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# **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 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.

## **Environmentally Aware**

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**<sup>®</sup> - Strong and durable drainage channels in Fibre-Reinforced Concrete (FRC).

**RECYFIX**<sup>®</sup> - 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 A15kN up to F900kN, 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









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# **Car Parks & Commercial**

Linear drainage systems for environments that require durable performance for frequently trafficked areas.

#### System Requirements

'Car Parks & Commercial' environments typically include the following characteristics:

- Medium to heavy-duty loads; C250kN E600kN (wheel, static, impact and dynamic). Channels installed at the base of ramps subject to impact loads, so systems with heavier load ratings (D400 & E600) are generally selected for these areas.
- Medium to high traffic flow; varied traffic patterns (frequency, speed, acceleration, braking, turning, angled approach). Channel systems installed in car parks are generally subject to regular traffic and wheels turning/ twisting on gratings, imposing dynamic forces.
- Varied wheel type and configuration (pnuematic, single, multi-tyre, occasional traffic by service vehicles with single-axle/double-axle).
- High surface water run-off (extensive catchment areas). Sheet flow may occur quickly down ramps (appropriate system gratings should be selected for efficient interception).
- Corrosive environments dependent on location.
- General surfaces (concrete, asphalt, block paving).
- Durable, practical and functional system design.

HAURATON systems included in this Product Selector meet and exceed the requirements for 'Car Parks & Commercial' project applications.

### **Typical Applications**

Projects where 'Car Parks & Commercial' environments exist include:

- Entrances
- Retail Areas
- Office Blocks
- Supermarkets
- Public Car Parks
- Healthcare Facilities
- Park & Ride Schemes
- Multi-Level & Basement Parking

\*HAURATON 'Car Parks & Commercial' systems are not suitable for use on highways in locations that are subjected to fast moving traffic.





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# **RECYFIX®**PRO

A medium-duty system with practical design suitable for a variety of applications up to D400 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 D400 (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 A15 D400 (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











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# **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**<sup>®</sup>PLUS is fitted with a range of 'lay-on' gratings in a variety of materials, designs and loading options up to D400kN. Refer to product brochure for detailed information.

### Key Features

#### **Material**

Modified Polypropylene (PP) composite

#### Loading

System load rated to D400 (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 A15 D400 (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











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# **RECYFIX®**MONOTEC

Designed and installed as a single monolithic unit, **RECYFIX**<sup>®</sup>MONOTEC is quick and easy to install and provides a stable, safe and secure surface environment for users. **RECYFIX**<sup>®</sup>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 D400 (EN 1433: 2002)

#### **Channel Widths**

100 & 200 mm

#### **Channel Lengths**

**1.**0m

#### **Grating Options**

- Monolithic channel with integral grating
- D400 (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 E600kN and F900kN load applications subject to traffic by forklift trucks and HGV's.

\*This system is especially resilient to dynamic forces caused by the turning/twisting action of wheels.











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# 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 C250 - E600).

**FASERFIX**<sup>®</sup>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 F900 (EN 1433: 2002)
- System typically installed in E600 load environments
- Suitable for F900 environments (light traffic only)
- Refer to FASERFIX®SUPER for F900 environments (heavily trafficked)

### **Channel Widths**

100, 150, 200 & 300 mm

### **Channel Lengths**

1.0m & 500 mm (selected depths)

### **Grating Options**

- Inlay design
- Load options ranging from A15 F900 (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.











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# **RECYFIX®**NC

**RECYFIX**<sup>®</sup>NC combines heavy-duty (E600kN) loading capability with practical design, easy handling, quick installation and high-performance on site.

**RECYFIX**®NC has a polypropylene edge-frame incorporated within the channel body structure, for improved durability and resilience when trafficked. The system is supplied to site as a fully assembled unit, with heavy-duty slotted gratings (spheroidal ductile iron GJS 500-7) securely bolted within the edge-frame housing (eight steel bolts per metre) for extra strength and safety. Refer to product brochure for detailed information.

### **Key Features**

#### **Material**

Modified Polypropylene (PP) composite

#### Loading

System load rated to E600 (EN 1433: 2002)

#### **Channel Widths**

100, 150, 200, 300 & 400 mm

#### **Channel Lengths**

1.0m & 500mm (selected depths)

#### **Grating Options**

- Inlay design
- D400 & E600 (EN 1433: 2002)
- Spheroidal ductile iron GJS 500-7 'EN1563'
- Slotted grating

#### **Channel Configuration**

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

#### **Edge Detail**

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

\*This system is especially resilient to dynamic forces caused by the turning/twisting action of wheels.











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# **RECYFIX®**HICAP®F SLOT CHANNEL

Manufactured from high-grade modified Polypropylene (PP) composite, **RECYFIX**<sup>®</sup>HICAP<sup>®</sup>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 F900 (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)
- D400 & F900 (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.











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# **SERVICE** CHANNELS

HAURATON SERVICE Channels provide a safe, practical and durable solution for the management and routing of underground cables, utilities and services. The system is supplied with a range of modular accessories including cable trays and junction boxes for easy access and flexible 'space-efficient' design.

SERVICE Channels can be configured from either **RECYFIX**® or **FASERFIX**® systems, with the most suitable type and size of channel selected to suit specific project requirements.

#### **Key Features**

#### **Material**

- **RECYFIX**® channels in modified Polypropylene (PP)
- **FASERFIX**® channels in fibre-reinforced concrete

#### Loading

- Polypropylene (PP) channels load rated to E600
- Fibre-reinforced concrete channels load rated to E600 (EN 1433: 2002)

#### **Channel Widths**

100, 200, 300, 400 & 500 mm

#### **Channel Lengths**

📕 1.0m

#### **Cover Options**

- Inlay design
- Solid covers (anti-slip)
- A15 & E600 (EN 1433: 2002)
- Galvanised steel 'chequer plate' (A15)
- Spheroidal ductile iron GJS 500-7 'EN1563'
- KTL 'cathodic dip' coating (optional)
- Side-Lock boltless locking mechanism

#### **Channel Configuration**

Constant-depth (same channel depth)

#### Edge Detail

- Galvanised steel S275J263+Z
- Spheroidal ductile iron GJS 500-7 'EN1563' (KTL 'cathodic dip' coated)











# **DRAINFIX®**CLEAN

**DRAINFIX**<sup>®</sup>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<sup>®</sup>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**<sup>®</sup>CLEAN is very effective when used in densely populated areas (streets, parking areas, service yards, landscape projects).

#### **Key Features**

#### 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 D400
- Fibre-reinforced concrete channels load rated to F900 (EN 1433: 2002)

#### **Channel Widths**

300, 400 & 500 mm

#### **Channel Lengths**

**1.**0m

#### **Grating Options**

- Inlay design
- Slotted grating
- D400, E600 & F900 (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'











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# **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.





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# **Design Software**

## Hydraulic Design Software

Our channel drainage configurations are designed and sized using in-house '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 25 years with total reliability.

### HAURATON DesignSoftware

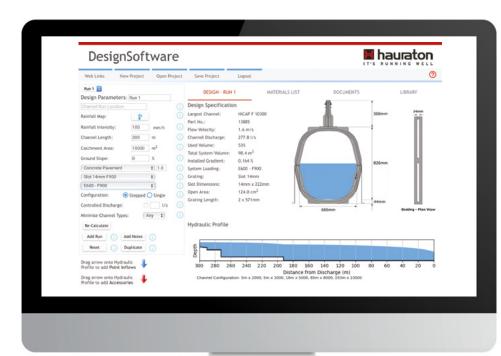
Hydraulic design software is also available free of charge to industry professionals. Intuitive and user friendly, 'HAURATON DesignSoftware' allows engineers to create drainage schemes for HAURATON's range of civil engineering systems on tablets, desk-top computers or through the internet (web-based application). Refer to HAURATON for further information.

## Hydraulic Design App

For smaller projects where a quick indication of the appropriate channel size and system is required for a given catchment area, HAURATON can provide a 'Hydraulic Design App'. Refer to HAURATON for details of how to download this software application.

The 'Hydraulic Design App' provides quick sizing of HAURATON channel systems following input of rainfall intensity data, the run-off coefficient (surface type) and catchment area size.







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# **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 years and twenty-five years respectively, **FASERFIX**<sup>®</sup> and **RECYFIX**<sup>®</sup> 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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