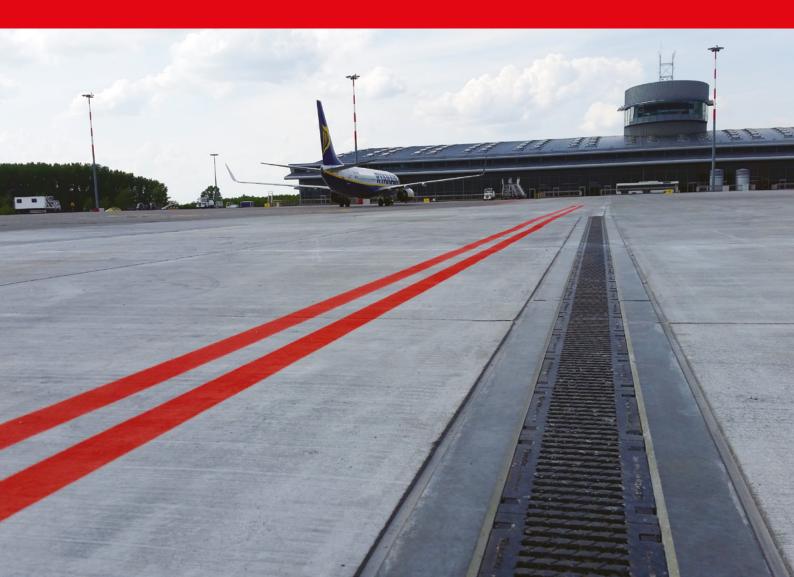


**PRODUCT** SELECTOR

# ULTRA HEAVY DUTY

Linear drainage systems for environments subject to dynamic forces and extreme loads.



AQUA

## **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









## **Ultra Heavy Duty**

Linear drainage systems for environments subject to dynamic forces and extreme loads.

#### System Requirements

'Ultra-Heavy-Duty' environments typically include the following characteristics:

- High loads; F900kN (wheel, static, impact and dynamic).
- Intense traffic patterns (variety, frequency, speed, acceleration, braking, turning, angled approach).
- Varied wheel type and configuration (small, solid, pnuematic, single, multi-tyre, single-axle/doubleaxle/multi-axle, single and multiple undercarriage arrangements, continuous track etc).
- High surface water run-off (extensive catchment areas).
- Corrosive environments (saline conditions, ground sulphates, high humidity, extreme temperatures, strong UV radiation, road gritting salts, de-icing solutions, chemicals etc).
- High-performance surfaces (concrete, high-spec asphalt, heavy-duty block paving).

HAURATON systems included in this Product Selector meet and exceed the requirements for 'Ultra-Heavy-Duty' project applications.

### **Typical Applications**

Projects where 'Ultra-Heavy-Duty' environments exist include:

- Airports
- Military Bases
- Oil & Gas Terminals
- Transport Infrastructure
- Industrial Area Infrastructure
- Ports, Docks, Container Terminals

\*HAURATON 'Ultra-Heavy-Duty' systems are not suitable for use on highways in locations that are subjected to fast moving traffic.



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## FASERFIX®SUPER

A strong, durable and reliable grated channel system in fibre-reinforced concrete, with a proven structural design for superior resistance to dynamic forces and extreme loads.

**FASERFIX**<sup>®</sup>SUPER has a higher specification compared to alternatives, for assured performance and reduced maintenance costs during all stages of the projects life. Refer to product brochure for detailed information.

#### **Key Features**

#### **Materia**l

Fibre-reinforced concrete

#### Loading

Channel body load rated to F900 (EN 1433: 2002)

#### **Channel Widths**

100, 150, 200, 300, 400 & 500 mm

#### **Channel Lengths**

1.0m & 500mm (selected depths)

#### **Grating Options**

- Inlay design
- D400, E600 & F900 (EN 1433: 2002)
- Spheroidal ductile iron GJS 500-7 'EN1563'
- Slotted grating
- GUGI-mesh grating
- Solid cover
- KTL 'cathodic dip' coating (optional)

#### **Channel Configuration**

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

#### Edge Detail

Two options:

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











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## FASERFIX®BIG BL

Cast from high-performance 'HRS' cement concrete, **FASERFIX**®BIG BL has a mega-monoblock design incorporating the channel surround, base and steel reinforcement cage within a single rigid 'concrete beam' structure for increased strength, stability and high resistance to impact loads.

**FASERFIX**<sup>®</sup>BIG BL is estimated to be ten times quicker to install (F900 locations) compared with alternative systems. Refer to product brochure for detailed information.

#### Key Features

#### **Material**

■ 'HRS' cement concrete

#### Loading

System load rated to F900 (EN 1433: 2002)
\*Units tested up to 2000kN without failure

#### **Channel Widths**

100, 150, 200 & 300 mm

#### **Channel Lengths**

4.0m & 1.0m

#### **Grating Options**

- Inlay design
- D400, E600 & F900 (EN 1433: 2002)
- Spheroidal ductile iron GJS 500-7 'EN1563'
- Slotted grating
- GUGI-mesh grating
- Solid cover
- KTL 'cathodic dip' coating (optional)

#### **Channel Configuration**

Constant-depth (same channel depth)

#### Edge Detail

Galvanised steel S275J263+Z











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SPORT

## **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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## **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

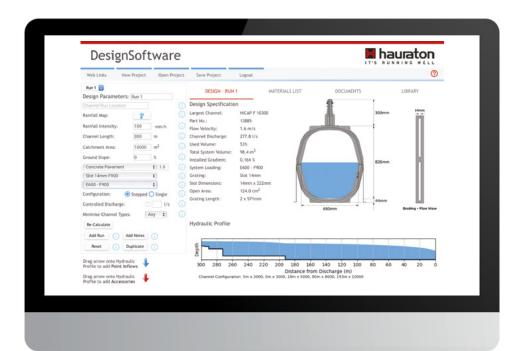
Hydraulic design software is also available free of charge to industry professionals. Intuitive and user friendly, 'HAURATON DesignSoftware' allows engineers to create drainage schemes for HAURATON's range of civil engineering systems on tablets, desk-top computers or through the internet (web-based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