Greenpipe

Innovation for a green future

RAILWAY INFRASTRUCTURE

DIVISIBLE CABLE PROTECTION PIPES

Innovative and sustainable protection pipe solutions
for railway, energy and infrastructure projects

RAILWAY INFRASTRUCTURE

Innovative solutions for demanding projects

Greenpipe develops and manufactures split cable protection ducts for demanding infrastructure environments. Since 2001, our solutions have helped contractors and asset owners protect power, signalling and communication cables in railway, energy, fibre and civil engineering projects across Europe.

Our duct systems provide robust mechanical protection while allowing installation around existing and live cables without disconnection.

They are used in temporary works, permanent installations and challenging ground conditions where accessibility, durability and installation efficiency are critical.

With products manufactured from 100 % recycled plastic, reusable across multiple projects and recyclable at end of life, Greenpipe combines reliable cable protection with circular material use and reduced environmental impact.

RAILWAY INFRASTRUCTURE

Greenpipe

Innovative solutions for demanding projects

Why split ducts?

- Installed around existing or live cables
- Fast and simple installation on site
- Robust protection in demanding environments
- For large cable sizes or when protecting many cables
- Suitable for temporary and permanent installations
- Easy access for inspection, maintenance and upgrades
- Proven and tested in accordance with applicable standards*
- No cable disconnection or splicing required
- Helps reduce project downtime and service interruptions
- Available in several dimensions and protection classes
- Reusable across multiple temporary projects
- Supports circular material use through recycled and recyclable plastic

* For more information about our products and solutions, or to learn more about their performance and testing, please contact us.

REUSING NATIVE BACKFILL

in demanding ground conditions

Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Rocky ground and coarse excavated material often require contractors to import sand or other bedding material to protect conventional cable ducts. This adds cost, transport and unnecessary environmental impact to the project.

Solution

Designed for harsh environments, robust split cable protection ducts can be backfilled directly with native excavated material in many installations. This minimizes the need for imported material, reduces transport and handling, and supports faster, more sustainable cable installations.

CABLE PROTECTION

in rock cuttings

Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Railway and road construction through rock cuttings often leaves cables installed directly against exposed bedrock or uneven surfaces. Sharp edges and limited installation depth increase the risk of mechanical damage throughout the service life of the cable.

Solution

Robust split cable protection ducts provide a durable mechanical barrier between the cable and the surrounding rock without requiring cable disconnection. Designed for demanding environments, they help ensure long-term cable protection while enabling efficient installation in confined or challenging terrain. Offers point protection in the middle of the cable and easy installation.

CABLE PROTECTION

across railway bridges

Greenpipe Snipp & Snapp® Panzar

Challenge

Crossing bridges with power, signalling or communication cables requires durable protection in exposed environments. Cables are subject to vibration, weather, UV exposure and mechanical impact, while maintenance access and uninterrupted operation remain essential.

Solution

Split cable protection ducts provide robust mechanical protection for cables installed along, across or onto railway bridges without requiring cable disconnection. Their durable, UV-resistant design and secure locking system ensure reliable long-term protection while allowing straightforward installation and future access for maintenance.

SUSPENDED CABLE PROTECTION

beneath bridges

Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Where cables need to cross rivers, roads or rail corridors, mounting them beneath bridge structures is often the most practical solution. In these exposed locations, cable protection must withstand weather, UV radiation and mechanical stress while remaining accessible for inspection and maintenance.

Solution

Split cable protection ducts provide a robust enclosure that can be installed around live cables before being securely suspended beneath bridge structures. Their durable construction and reusable design ensure long-term protection while simplifying future maintenance and cable replacement.

CABLE BRANCHING

and junction protection

Greenpipe Snipp & Snapp® Multibox

Challenge

Cable junctions and branching points are among the most vulnerable parts of any cable installation. Exposed splices and transitions increase the risk of mechanical damage, make maintenance more difficult and often result in unstructured installations.

Solution

The Greenpipe Multibox provides a protected enclosure for cable splices, branches and changes in direction while connecting seamlessly to split cable protection ducts. It creates a robust, organized and easily accessible installation that simplifies future maintenance and protects critical infra-structure throughout its service life.

REDUCED INSTALLATION DEPTH

for underground cables

Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Rock, existing infrastructure or other site constraints can make it impossible to achieve the specified installation depth for underground cables. Excavating deeper may require costly rock blasting or drilling, leading to increased project time, cost and environmental impact.

Solution

High-strength split cable protection ducts provide the mechanical protection needed for installations with reduced cover, helping contractors meet protection requirements without extensive excavation. Their robust design minimizes the need for blasting or drilling while enabling faster, more cost-effective cable installations in challenging ground conditions.

HANDLING & RELOCATION

temporary of live railway cables

Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Railway construction and maintenance projects often require live power, signalling and communication cables to be temporarily lifted, relocated or suspended while excavation and civil works continue. Maintaining network availability while protecting these critical assets is essential to avoid service interruptions and project delays.

Solution

Split cable protection ducts provide a robust mechanical enclosure that can be installed around live cables without splicing or disconnection. Their durable construction enables cables to be safely handled, suspended and temporarily rerouted throughout the construction phase before being returned to their permanent position.

PROTECTION & ORGANISATION

of multiple railway cables

Greenpipe Snipp & Snapp® Quicklock
Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Railway corridors often contain large numbers of signalling, power and communication cables installed over many years. During upgrades, maintenance and infrastructure expansion, these cable routes must be protected while allowing easy access for future modifications and inspections.

Solution

Split cable protection ducts enable multiple existing cables to be enclosed without disconnecting or cutting them. New cables can easily be added alongside existing installations, creating an organised, mechanically protected cable route that remains accessible throughout the asset's lifetime. This reduces installation time, minimises disruption to railway operations and simplifies future maintenance.

IMMEDIATE PROTECTION

of newly exposed live cables

Greenpipe Snipp & Snapp® Quicklock
Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

During excavation and railway upgrade projects, previously undocumented or inaccurately positioned cables are frequently discovered. These live cables must be protected immediately to avoid damage, project delays and costly service interruptions.

Solution

Split cable protection ducts can be installed directly around exposed cables without disconnecting or moving them. This allows contractors to secure the cables within minutes, continue excavation safely and maintain railway operations while the permanent solution is planned and implemented.

TEMPORARY PROTECTION

of contact line cables during mast replacement

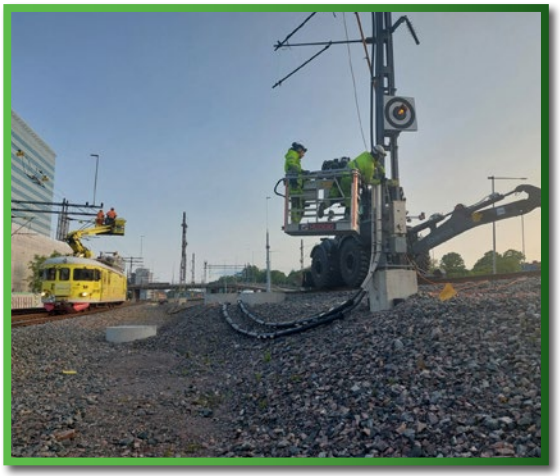
Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

When overhead line masts are replaced or re-located, the associated contact line cables are often temporarily laid on the ground or routed along the track until they can be reinstalled. During this period, the cables require reliable mechanical protection against construction activities, ballast and construction equipment.

Solution

Split cable protection ducts can be installed around existing cables without disconnecting them, providing immediate protection throughout the construction phase. Once the new mast or support structure is in place, the cables can be safely rehung while remaining fully operational.



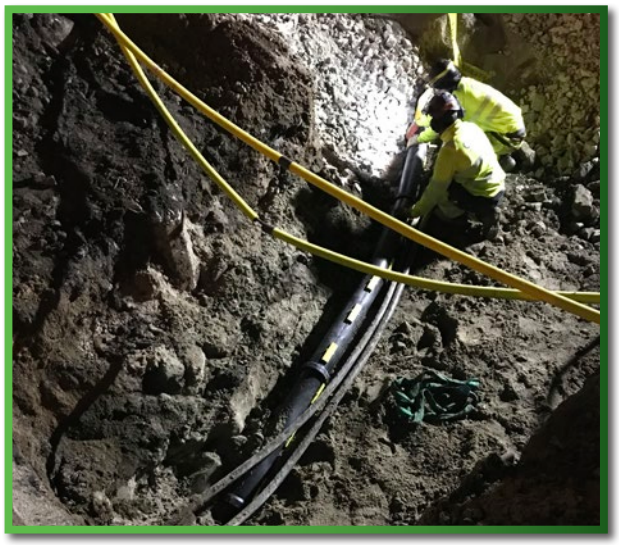
PERMANENT PROTECTION

of railway cables in new infrastructure

Greenpipe Snipp & Snapp® Quicklock
Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Railway construction and track expansion projects require long-term cable protection that ensures reliable operation throughout the asset's lifetime. Signalling, power and communication cables must be protected against mechanical loads while remaining accessible for inspection, maintenance and future upgrades.



Solutions

Split cable protection ducts provide a durable, maintenance-friendly solution for permanent installation. Existing and new cables can be enclosed without splicing, allowing modifications and extensions long after commissioning. Manufactured from 100 % recycled plastic, the ducts combine long service life with a sustainable alternative to conventional cable protection systems.

PROTECTION OF CABLE JOINTS

and repair splices

Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Cable joints and repair splices are among the most vulnerable points in any cable network. During new installations, repairs or cable replacements, these sections require additional mechanical protection to prevent damage from rocks, ground movement or future excavation.

Solution

Split cable protection ducts provide a simple way to protect cable joints without disconnecting or disturbing existing cables. The duct is installed directly around the completed joint, creating a durable protective enclosure while avoiding unnecessary excavation or cable handling. This makes it an efficient solution for both planned installations and emergency repairs.

This is particularly valuable in railway environments, where rapid repairs and reliable protection are essential to minimise possession time and maintain network availability.

TEMPORARY CABLE ROUTING

during railway construction

Greenpipe Snipp & Snapp® Quicklock
Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

During railway construction and renewal projects, cables are often rerouted temporarily to maintain uninterrupted operation while permanent infrastructure is being installed. These temporary cable routes may remain in service for weeks or months and require reliable mechanical protection.

Solution

Split cable protection ducts provide a robust solution for protecting live cables without disconnecting or interrupting services. The ducts can be installed quickly around existing cables, adapted as the work progresses and removed or reused once the permanent installation is complete.

In Sweden, the Swedish Transport Administration (Trafikverket) specifies different protection classes depending on the intended installation period for temporary cable routing. Greenpipe offers duct systems that meet these requirements, including solutions for temporary installations up to 2 months, up to 12 months, as well as permanent applications.

CABLE PROTECTION

in railway tunnels

Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Railway tunnels present challenging installation conditions, with limited working space, existing cable infrastructure and restricted access. Split cable protection ducts provide an efficient solution for protecting power, signalling and communication cables during maintenance, refurbishment and infrastructure upgrades.

Solution

The split design allows installation around existing cables without disconnecting services, reducing installation time and minimizing disruption to railway operations. Lightweight sections are easy to handle in confined environments and can be adapted to existing cable routes, bends and equipment.

Whether protecting newly installed cables or upgrading existing installations, split ducts offer a practical and efficient method of providing long-term mechanical cable protection in tunnel environments.

RAILWAY TRACK CROSSINGS

beneath or between the tracks

Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Installing new cables across railway tracks often requires additional protection where cables pass beneath or between the tracks. Split cable protection ducts provide a practical solution for both new installations and upgrades to existing cable routes.

Solution

The split design allows cables to be installed or protected without disconnecting existing services, while the robust construction provides reliable mechanical protection in demanding railway environments. The system can be adapted to a wide range of cable sizes and installation methods, making it suitable for signalling, power and communication infrastructure.

Split ducts are an efficient solution for track crossings during railway upgrades, maintenance projects and new infrastructure construction.

Principle illustration of split cable protection ducts used for railway track crossings, connecting longitudinal cable routes with cross-track ducting via a junction point.

CONNECTION TO SUBSTATIONS

and control systems

Greenpipe Snipp & Snapp® Hardlock
Greenpipe Snipp & Snapp® Panzar

Challenge

Cable routes into substations and control systems can be difficult to protect, particularly where space is limited and cables need to transition between underground routes, equipment foundations, and cabinets. Tight bends and restricted access can make conventional cable protection difficult to install close to the equipment, leaving sections of cable exposed to mechanical damage.

Solution

Greenpipe Snipp & Snapp® provides continuous mechanical protection through challenging cable routes and transitions. The split design allows Hardlock or Panzar to be installed around existing cables, while the system can follow bends and protect cables close to foundations, cabinets and other equipment.

This provides a practical solution for substations and control systems where space is restricted and conventional cable protection cannot easily follow the complete cable route.

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greenpipegroup.com | info@greenpipe.se | +46 470 – 120 10

MADE IN SWEDEN