

GF Piping Systems

+GF+

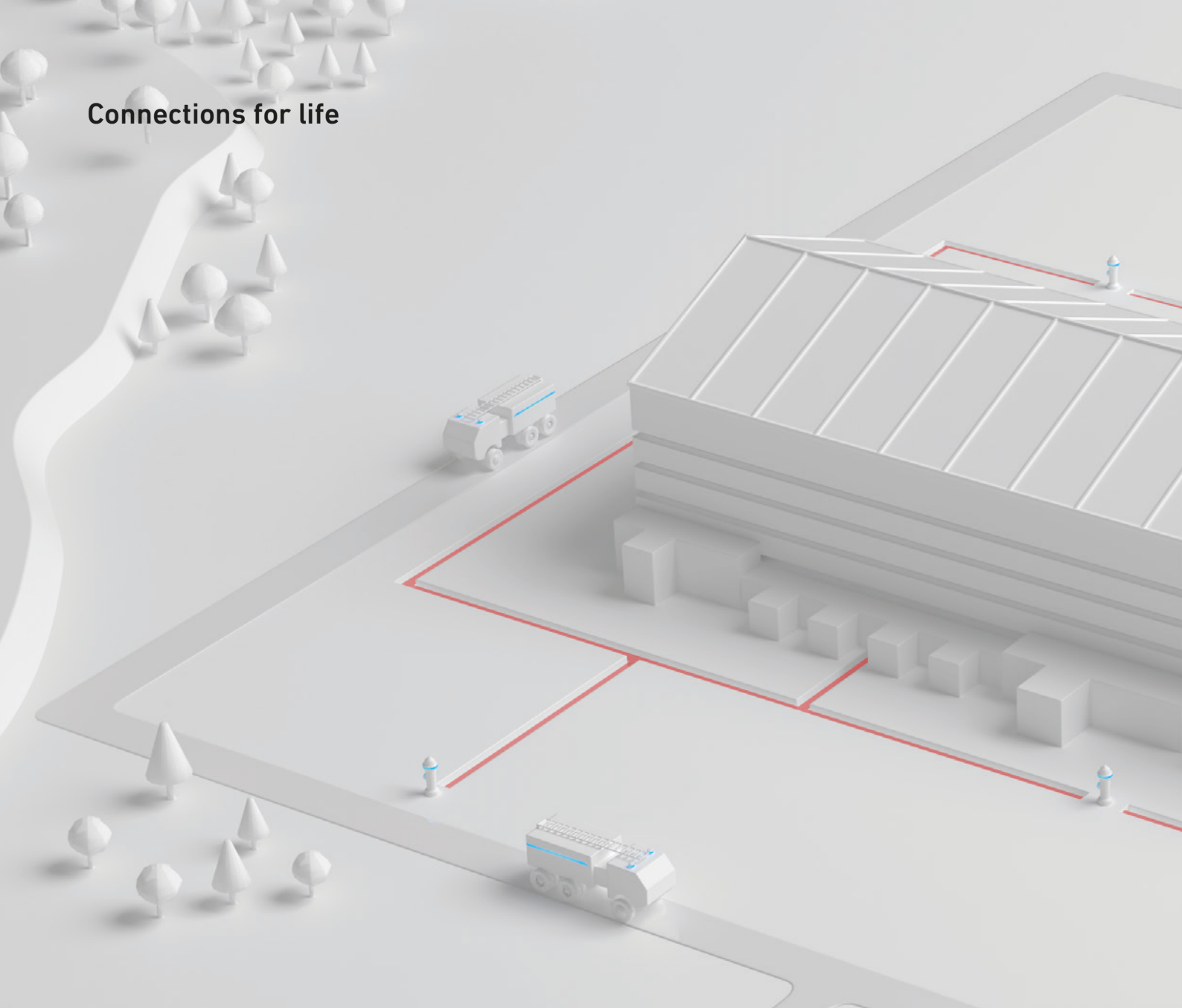
FM PE system

Reliable to the extreme

Underground fire protection

Highest level of safety and reliability
with FM certification for firefighting
water systems.

FM
APPROVED

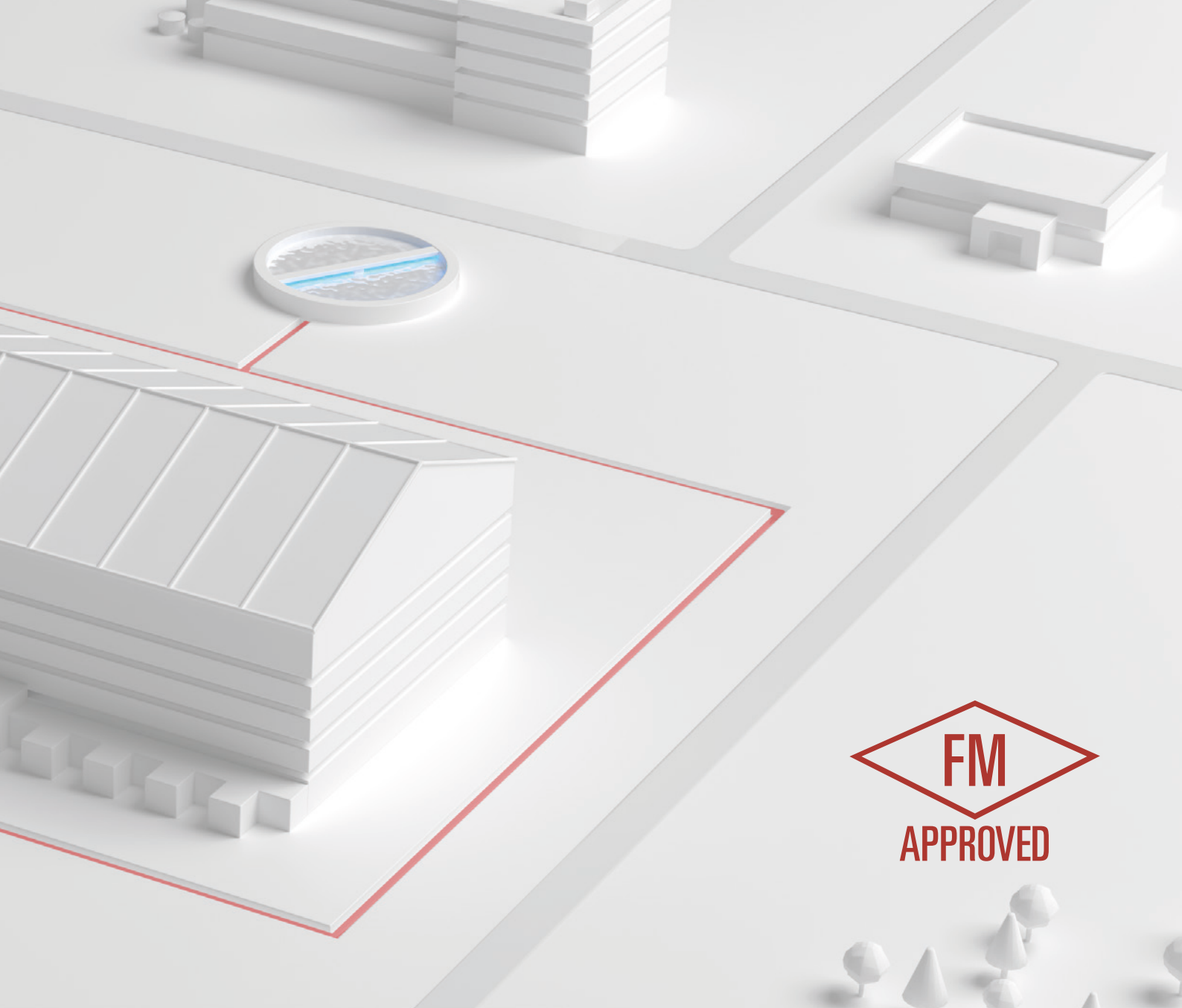


The benefits of FM 1613 Approved PE piping systems

Underground PE piping systems for fire protection

In case of fire, a secure and reliable supply of water for underground distribution and above ground sprinkler systems is crucial for emergency management. The complete system relies on a consistent supply of water with adequate pressure and the right flow rate. GF Piping Systems delivers the solution with FM Approved PE underground systems.

FM Approvals is an internationally recognized certification organization which tests and certifies components for fire protection systems. Any GF Piping Systems product that is FM Approved is guaranteed to meet rigorous loss prevention standards of quality, technical integrity and performance. The manufacturing processes and the in-house testing facilities at GF Piping Systems have been inspected by FM Approvals, and are audited on a frequent basis to ensure compliance and continuous improvement.



+ Reduced carbon footprint

PE systems reduce CO₂ emissions by more than 80 percent compared to metal systems and are fully recyclable. Especially for installations with large dimensions and more material, this is a considerable advantage. They make a positive environmental contribution and support your sustainability efforts.

+ Corrosion-resistant

Fire prevention systems must be extremely reliable over long periods of time. With PE systems that is no problem, because they are corrosion-resistant, maintenance-free, and show no additional pressure losses.

+ Resilience to ground movement

The natural resiliency of PE pipes means they absorb surges in pressure, vibration and stress, reducing the risk of breaks and leaks, keeping the water and gas supply continuous.

+ Enhanced reliability and cost efficient

GFPS FM Approved PE fittings include more rigorous performance testing, at a facility that is regularly audited by FM Approvals personnel.

Overall they reduce the insurance premium due to the additional safeguards. The building insurer is able to downgrade the fire risk and cost savings for the industrial operation.

Highest level of safety for firefighting water pipes

Fire protection plays a key role in commercial buildings. Numerous structural measures need to be implemented in order to fulfil the applicable regulations and minimize the risk of damage in case of fire. To ensure a reliable and adequate supply of extinguishing water in case of fire, underground networks of welded pipelines from non-corrosive polyethylene are most commonly used today.



Challenge

Closely spaced building parts encourage the spread of flames in case of fire and often lead to significantly increased damage or total loss. This is the reason why an industrial company from Germany decided to install, as a precautionary measure, a new fire protection system with an extinguishing water storage system. The idea of equipping the new facility with a larger capacity extinguishing water supply and connecting it to the existing system emerged in collaboration with GF Piping Systems during the planning phase. The commissioned piping constructor had to install the new lines in just a few weeks during ongoing production.

GF Piping Systems solution

The search for an optimum solution led to the reliable and

FM Approved polyethylene components from GF Piping Systems. The new supply lines (d160 mm to d500 mm) connect the new extinguishing water tank to the existing storage and production buildings via various branches routed underneath the road.

Achieved improvement

"This solution means the company is not reliant upon the local water supply. It also reduces the insurance premium due to the additional safeguards", explains Thomas Schmitt, technical sales consultant responsible at GF Piping Systems. Thanks to the use of FM Approved systems, the building insurer is able to downgrade the fire risk and cost savings for the industrial operation can be achieved.

Used products



ELGEF Plus FM Electrofusion coupler

Unique features of the patented active reinforcement principle (d90 mm - 500 mm) not only ensure extremely easy and fast installation, but also high reliability with its perfect welding results.



ELGEF Plus FM Spigot fittings

The extensive spigot fitting range naturally complements the ELGEF Plus electrofusion program. Long spigot fittings can be easily combined with ELGEF Plus electrofusion couplers or fittings to facilitate and speed up installation.



ecoFit FM Pipes

With a constant focus on maximum reliability and safety our ecoFIT Pipes assures a sustained high level of product quality and outstanding performance standards in firefighting water systems.



Machines & Tools

GF Piping Systems offers full compatibility between all the components, tools, and fittings to ensure easy and secure installation with the right jointing technique and welding machines to help prolong the total service life of your system.

Customer benefits

- Corrosion and sediment-free firefighting water networks from polyethylene guarantee minimum pressure loss and ensure maximum pump pressure in case of fire.
- FM Approved* components from d90 mm to d630 mm offer cost benefits for insurance protection.
- Special spigot fitting design features facilitate and speed up installation.

Added value services

Specialized Solutions

With Specialized Solutions, GF Piping Systems supports the design and installation of state of the art plastic piping systems, so that owners and planners can concentrate on their daily business without interruption. GF Piping Systems is present every step of the way, from providing planning support on new projects to testing the condition of old systems.



Engineering

Specialized expertise

Increase the efficiency of your project with the tailor-made analysis packages from GF Piping Systems and decide which offer is right for you according to your needs. You have the choice between Project Analysis and Advanced Engineering, thus always receiving the appropriate support in every phase of your project. Established knowledge, guiding you through.



Condition Analysis

Specialized insight

Integrity of a piping system is essential for owner/operators of water, gas and chemical process plants. GF Piping Systems specialists can checkup welds on the field or inspect samples in our state of the art accredited materials testing laboratory offering a 'Fit for Service' certification via microscopic analysis, visual inspections and practical testing. This attention to detail enables informed decisions throughout a project's operation. Performance assured, for your peace of mind.



Track & Trace

Specialized visibility

Track & Trace is a cloud-based field data collector, supporting you with a wide range of online functionalities to streamline your decision-making processes throughout the implementation and operation of any kind of project.



Training

Specialized education

GF Piping Systems instructional courses to help you teach your customers and their installers essential knowledge for the welding of pipes and piping components, as well as an in-depth understanding of butt and electrofusion connections. With Specialized Education from GF Piping Systems, we help prevent damage before it occurs, with well-trained and qualified installers.

Product range metric

Overview of our FM PE system



Product	SDR	FM class PN (bar)	Welding technology	Diameter
ELGEF Plus Coupler	SDR11	15	Electrofusion	d90 - 500 mm
ELGEF Plus Branch saddle	SDR11	15	Electrofusion	d110 - 500 mm
ELGEF Plus Reducer	SDR11	15	Electrofusion / Butt fusion	d110 - 315 mm
ELGEF Plus Elbow 90°	SDR11	15	Electrofusion / Butt fusion	d90 - 500 mm
ELGEF Plus Elbow 45°	SDR11	15	Electrofusion / Butt fusion	d90 - 500 mm
ELGEF Plus T 90°	SDR11	15	Electrofusion / Butt fusion	d90 - 500 mm
ELGEF Plus End Cap	SDR11	15	Electrofusion / Butt fusion	d90 - 500 mm
ELGEF Plus Flange Adaptor	SDR11	15	Electrofusion / Butt fusion	d90 - 500 mm
ELGEF Plus Reducer	SDR11	12	Electrofusion / Butt fusion	d355 - 500 mm
ELGEF Plus End Cap	SDR11	12	Electrofusion / Butt fusion	d355 - 500 mm
ecoFIT FM Pipe 5 m	SDR11	12	Electrofusion / Butt fusion	d90 - 500 mm
ecoFIT FM Pipe 12 m	SDR11	12	Electrofusion / Butt fusion	d90 - 500 mm

GF Piping Systems can also offer you a complete FM product line in IP standard with an ASTM certificate.

Next steps

In this brochure, you have received the most important information and technical details. But nothing replaces a personal conversation with an expert from GF Piping Systems. It is all about your needs and how we can support you in your daily business challenges. If you have not already done so, make an appointment today.

On the GF Piping Systems website, you will find specialized contact persons in your area. There you will also find further

information on the product, including technical data sheets and operating instructions as well as relevant certificates and approvals.

- Appointment with an expert from GF Piping Systems
- Advice on the benefits of the solution for you
- Information on reference applications
- Help with selection and calculations
- Support in all project phases

Find out more - www.gfps.com/fm-pe-range



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Our sales companies and representatives ensure local customer support in more than 100 countries.

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