

# Strong veins for your building

High-rise water distribution  
Drinking water installations  
Waste water drainage  
Hygiene and safety systems  
Cooling applications





# Building the lifelines of the world

GF Piping Systems is the global specialist for the safe and reliable transportation of water, chemicals, and gas. Customers in more than 100 countries implement our solutions to work more safely, efficiently, and cost-effectively.

## Your partner for modern plastic piping systems

Customers in more than 100 countries are already working with the plastic piping systems that GF Piping Systems introduced more than 60 years ago. The pipes are maintenance-free, resistant to corrosive and aggressive media, and extremely durable. Their low weight, compared to metal systems, reduces static and logistic requirements. An innovative design and modern jointing technologies allow faster and easier installations. All this helps you to work more safely, efficiently, and cost-effectively. A key focus of our specialists is the support throughout the transition from metal to plastic systems.

## Our customers appreciate:

- **Maintenance-free plastics**

Plastics are corrosion-free and maintenance-free. They have excellent chemical resistance and last as long as the system itself, which is more than 25 years.

- **Complete system solutions**

Our portfolio of more than 60,000 products offers complete system solutions, meaning you get perfectly matched components from a single source.

- **Local support**

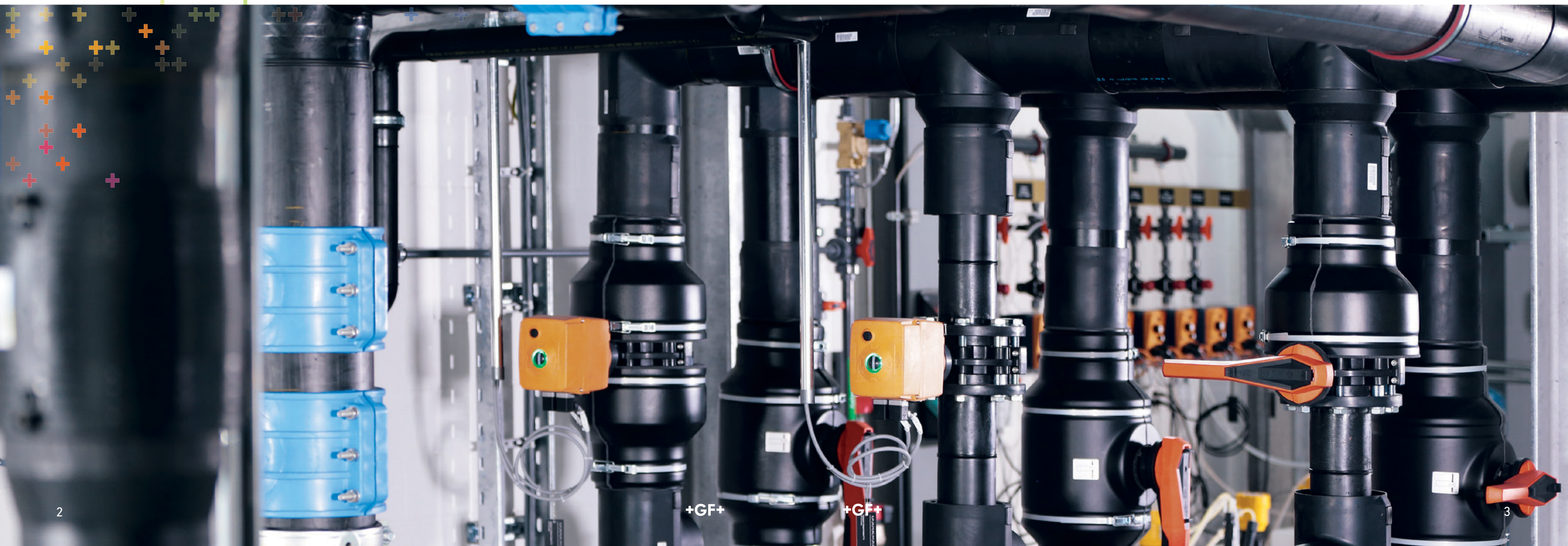
GF Piping Systems specialists are located in 34 countries and are therefore always close at hand; their advice and on-site practical assistance is never far away.

- **Partner in all project phases**

The specialists of GF Piping Systems support you throughout all phases of your project – from the planning stage with BIM, right through to commissioning. This reduces both your time requirements and risks.

- **Many years of experience**

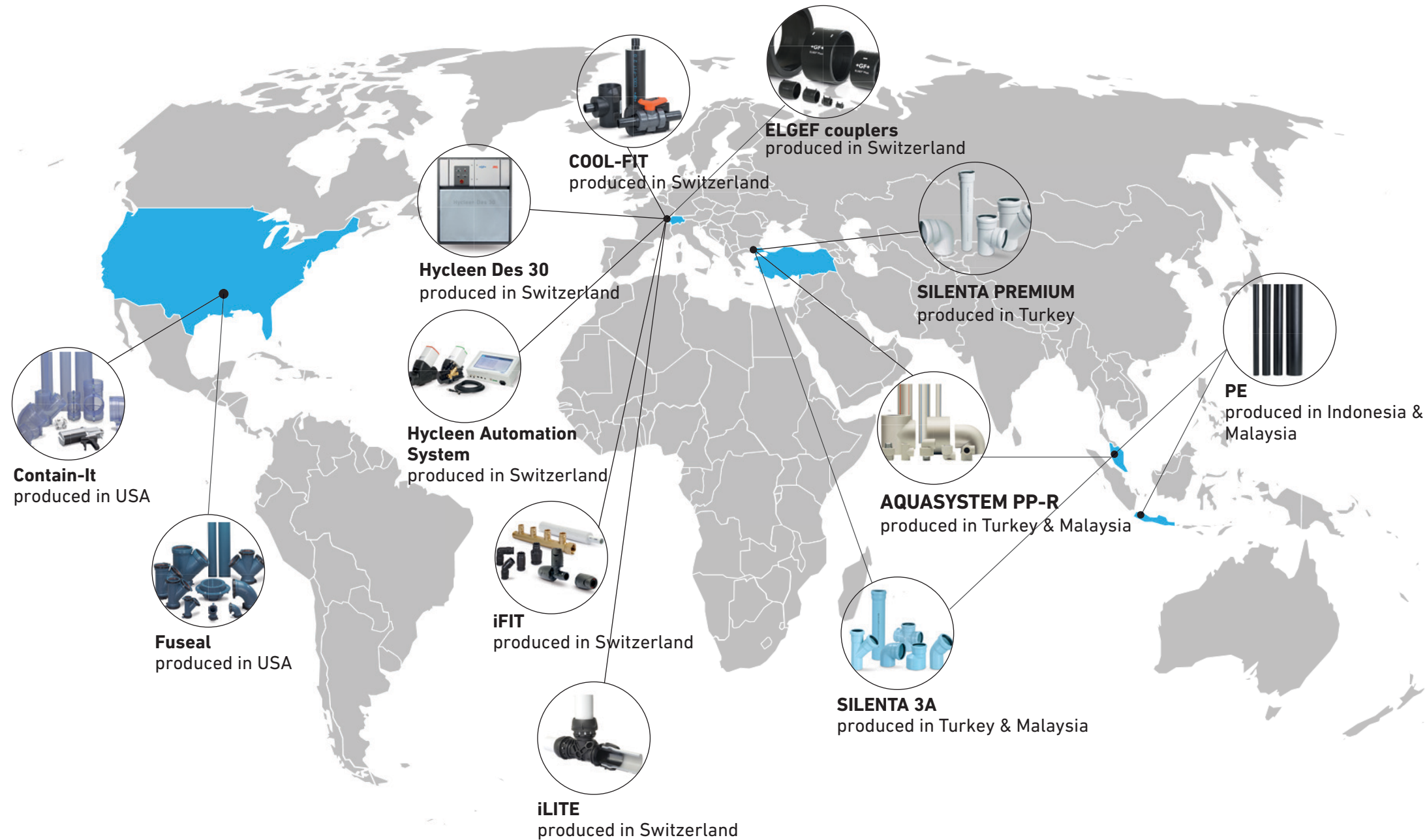
GF Piping Systems is a division of Georg Fischer AG, based in Schaffhausen, Switzerland, which was established in 1802. You can benefit from our many years of experience.





At home around the world

# Building technology solutions from our factories



## Global presence

GF Piping Systems has a total of 34 sales companies and representative offices and 32 production companies worldwide. Our Building Technology solutions are produced in Switzerland, Turkey, Malaysia, Indonesia and the USA.





Rewarding journey

# From metal to plastic

Introducing thermoplastics to your projects might seem challenging. With GF by your side, you have nothing to worry about. For more than 60 years, we have been supporting customers with their switch from metal to plastic and partnered with them at every project stage.

**+ Why we love plastics**

**Extremely long service life**

Plastic pipelines are maintenance-free and do not need to be replaced over the entire lifespan of the system (at least 25 years). This reduces the need for maintenance and repair, operating and overall costs.

**Corrosion-free and abrasion-resistant**

Whether drinking or process water, coolants, acids and other chemicals or water-solid mixtures (e.g. sludge) - plastic piping systems excellently withstand all chemical and mechanical loads.

**Faster installation**

Innovative system additions ensure that plastic piping can be installed up to 50 percent faster. These include the revolutionary pre-insulation of COOL-FIT and integrated electrofusion solutions.

**Low weight**

Plastic pipes weigh 60 percent less than comparable metal pipes. Thus, they cause less static concern when installed in buildings or ships, while being easier to transport and move on-site.

**Versatility**

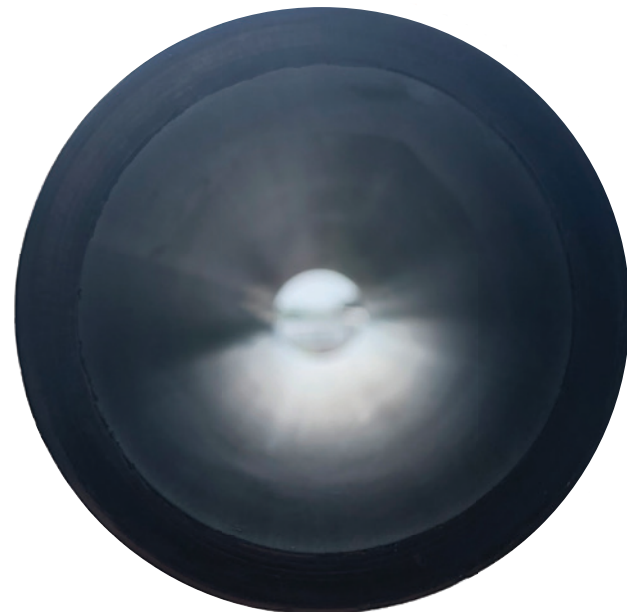
The choice of materials allows plastic pipelines to be perfectly adapted to the respective requirements.

**Higher safety**

The excellent properties of plastics mean that there are significantly fewer leaks compared to metal solutions. At the same time they show a comparable mechanical behavior. In certain situations, it is even better than metal because of plastic's typical flexibility.

**Higher efficiency**

The system's efficiency is increased by the low pressure drop of plastic pipes, their low thermal conductivity, and their excellent flow rate.

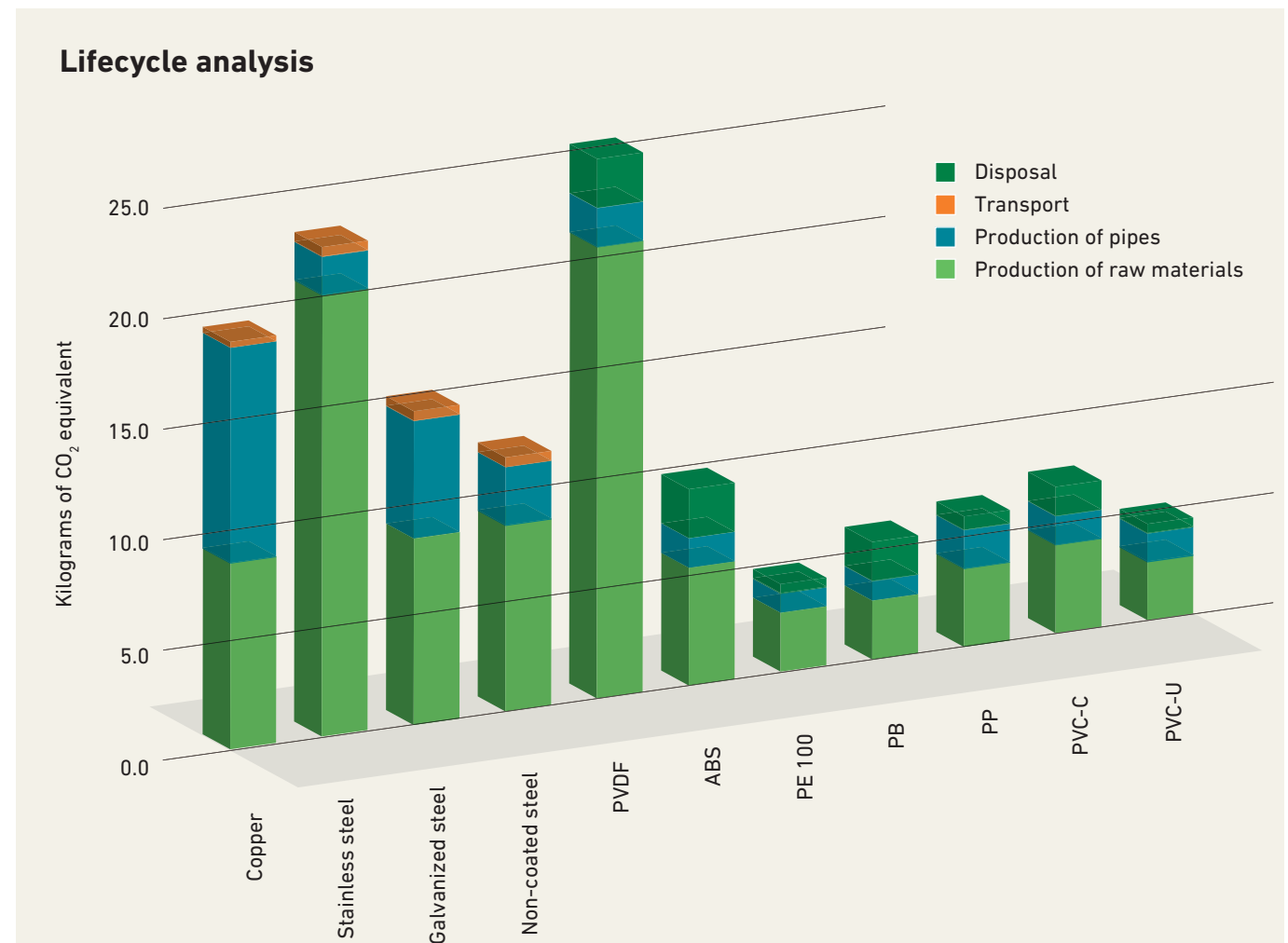


**+ Environmental performance: Plastic piping systems better than metal**

The carbon footprint is the total of all greenhouse gases emitted into the atmosphere throughout the lifetime of a product, from extraction to refining, production, transport, use and disposal.

The environmental performance of piping systems in thermoplastics was determined by assessing the lifecycle of the pipes for applications in the building technology, industry, and water and gas distribution sectors. The analysis compared the environmental impact of a one-meter pipe made of each of the

commonly used plastics with the main competitor materials (for DN25, 80, 150 and 400). The study was conducted by an independent Swiss company specializing in the analysis of environmental performance and is based on Ecoinvent, the world's leading lifecycle inventory database. The graphic shows the results as follows.



The main findings of this study were that plastic piping systems offer a better environmental performance than metal systems, a result which has also been confirmed by various other studies in this area. Thermoplastics score particularly high because of the reduced weight, which pays off when it comes to transport and installation. Full plastic solutions are lighter than other piping systems using conventional materials, which has a positive impact

on the carbon footprint. The conclusions reached by these studies and by other available simulations have been brought together in an online tool ([www.gfps.com](http://www.gfps.com)) for calculating the savings in carbon dioxide emissions by using plastics rather than the more common metals.



# All you need for your project portfolio

Dealing with an entire building requires more than just one single piping system. That's why we offer state-of-the-art solutions to cover each of your diverse applications. Whether hot and cold water, hygiene, chilled water or waste water applications - our extensive range covers your complete project.

## 1 Hot and cold water

AQUASYSTEM PP-R

### The basic system for water supply

Easy to use and install, while fulfilling the water sector requirements.



pp. 10-11

iFIT

### Maximum flexibility for small dimensions

Modular system for plumbing and heating using 50% less system components.



pp. 12-13

iLITE

### The choice for an excellent flow rate

Quick and safe connection while maintaining an excellent flow rate.



pp. 14-15

ecoFIT

### Alternative for cold water lines

Corrosion resistant PE solution when only cold water lines are needed.



pp. 16-17

## 2 Hygiene & safety

Hyclean Automation System

### Preventive flushes with a single control

State-of-the-art circulation control system for remote monitoring.



pp. 18-19

Hyclean Des 30

### Disinfection for drinking water

Keeping drinking water safe with an electro-activated disinfection fluid.



pp. 20-21

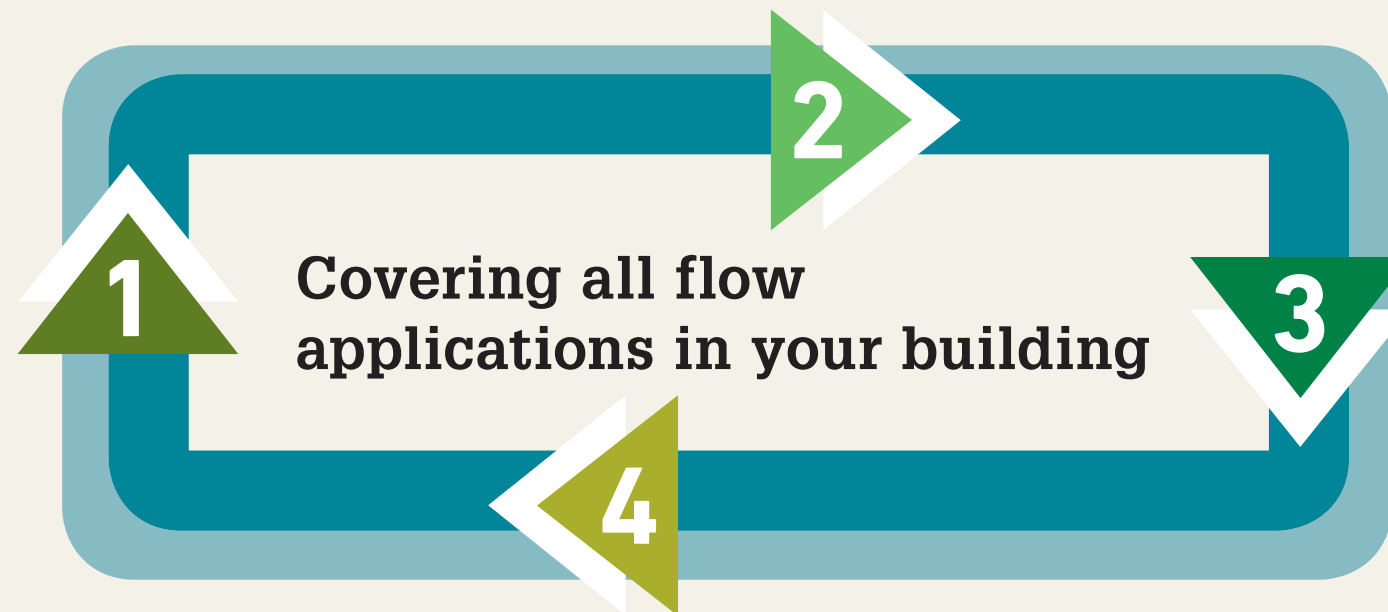
Contain-It

### Double safety for hygienically sensitive environments

Easy and reliable secondary containment piping system.



pp. 22-23



Covering all flow applications in your building

## 3 Chilled water

COOL-FIT

### Revolution for efficient cooling

Condensation free transport of chilled water inside buildings.



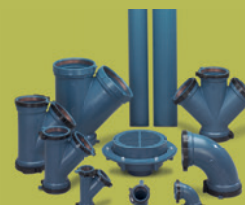
pp. 24-25

## 4 Waste water

Fuseal

### Safe transport of corrosive waste

Resistant PP for alkalis, alcohols, acids, solvents and salt solutions.



pp. 26-27

SILENTA PREMIUM

### For quiet environments

3-layered polypropylene acoustic pipe with 13 dB sound transmission in 4 l/s.

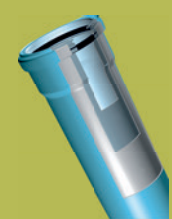


pp. 28-29

SILENTA 3A

### For low noise environments

3-layered polypropylene acoustic pipe with 16 dB sound transmission in 4 l/s.



pp. 30-31

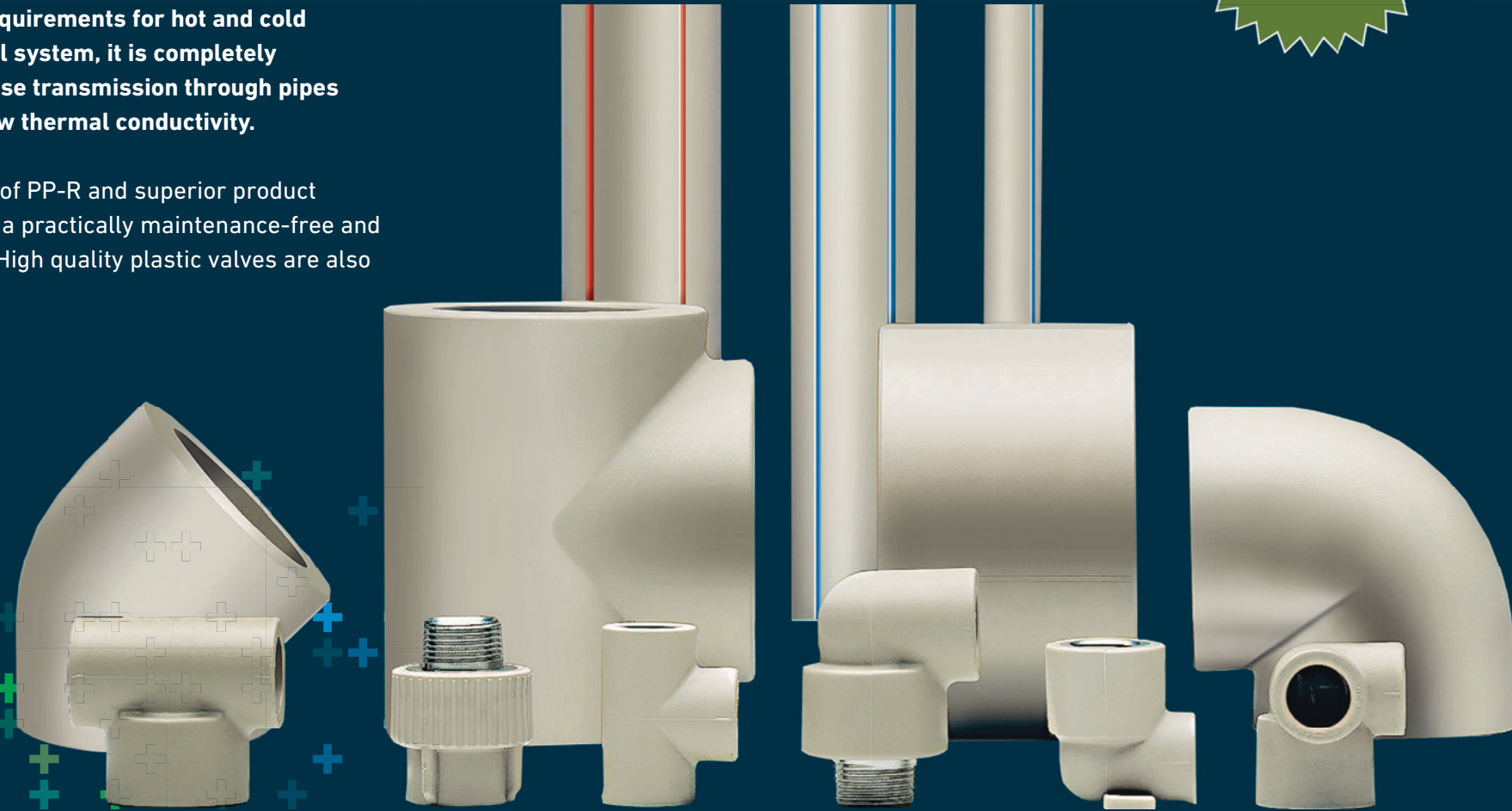


# PP-R Piping System

AQUASYSTEM is a comprehensive plastic piping system, which complies with the requirements for hot and cold plumbing systems. As a full system, it is completely corrosion free, reduces noise transmission through pipes and saves energy due to low thermal conductivity.

The outstanding properties of PP-R and superior product quality make AQUASYSTEM a practically maintenance-free and extremely durable system. High quality plastic valves are also available.

Hot and cold water



## At a glance

- Material **PP-R**
- Dimension up to **d160mm**
- Pressure rating **PN10 / PN16 / PN20**
- Temperature **0 to +95°C**  
0°C to 70°C in continuous operation, short-term up to 95°C

### + Your benefits

- Longevity - designed to operate >50 years
- Low density at 0.91g/cm<sup>3</sup> (1/9 of metal pipes)
- High elasticity
- Chemical resistance; hygienically safe
- Neutral taste & odor; suitable for food processing
- Low thermal conductivity; thermal losses reduced, low formation of condensation
- Smooth surfaces; reduced pressure losses, no incrustation, bacteriologically neutral
- Low electrical conductivity
- Leak proof with homogenous joints

### + Your applications

Leak-free and reliable piping systems for plumbing, heating, air-conditioning and water supply in hotels, hospitals, industrial buildings, and residential buildings.

### + Product range

The wide product range provides the right solution for each application: pipes for hot water (PN20 & PN16) and cold water (PN16 & PN10) as well as socket fusion fittings and a wide selection of dezincification resistant (DZR) brass transition fittings.

### + Installation

- Homogeneous connection; no cement used, fitting and pipe become one unit = homogeneous joint with same characteristics of pipe material
- Socket fusion jointing can be implemented easily and quickly within seconds, only requiring simple and inexpensive 230V tools
- Jointing through electrofusion and butt fusion possible
- Reliable and long lasting; no more leaking joints, lifetime of 50 years or more
- No theft value



iFIT

# Installations made simple

iFIT is an innovative installation system with a unique modular adapter technology for plumbing and heating. Thanks to its modular design, iFIT provides more options while using 50% fewer system components compared to conventional installation systems. This means low stocking at maximum flexibility.

With the introduction of iFIT, plumbing technology has taken another step forward. It has never been easier and safer to install polybutene and multilayer composite pipes in the dimensions d16, d20, d25 and d32.

Hot and cold water



## At a glance

- Material  
**PE-RT / AL / PE-RT**  
(Multilayer pipe)  
**PB**
- Dimension  
up to **d32mm**
- Pressure rating  
**PN10**
- Temperature  
**0 to +95°C**  
0°C to 70°C in continuous operation,  
short-term up to 95°C (5 bar)

### + Your benefits

#### For plumbers

- Quick and easy installation
- Visual and audible click lock
- Cost-efficient
- Fewer components
- Cross-dimensional use

#### For home owners and planners

- Suitable for all types of installation
- High operational safety
- Cost effectiveness
- Environmentally friendly

### + Your applications

The modular adapter system iFIT meets highest economic standards. Conventional installation systems for plumbing and heating usually consist of 250 to 300 components, which makes it sometimes difficult for the plumber to have the required part available. The iFIT push-fit system offers a solution. Thanks to its modular design, the plumber requires only half the components for the same number of applications, thus reducing storage costs.

### + Piping materials

Diffusion-tight multilayer composite pipe with inner and outer layer made of PE-RT (temperature resistant polyethylene) with butt welded aluminum for plumbing and heating. Homogeneous polybutene (PB) all-plastic pipe for plumbing.

### + Fitting materials

Fittings made of high-performance plastic (PPSU) and of dezincification-resistant (DZR), low-lead brass.





iLITE

# Innovative potable water and heating system d16-d32

Hot and cold water

iLITE is an innovative plastic piping system used for plumbing and heating. This new system offers a quick and safe connection of various piping materials while providing an excellent flow rate at the same time. iLITE is the ideal choice for use in drinking water and heating distribution because of its long life span.



## At a glance

- Material  
**PE-RT / AL / PE-RT**  
(Multilayer pipe)  
**PE-X**
- Dimension  
up to **d32mm**
- Pressure rating  
**PN10**
- Temperature  
**0 to +95°C**  
0°C to 70°C in continuous operation,  
short-term up to 95°C

### + Your benefits

- For plumbers**
- Quick and easy installation
  - Flexibility
  - Visual inspection
  - Safe connection
- For home owners and planners**
- Excellent flow rate
  - High operational safety

### + Your applications

iLITE is a system for three applications.  
Potable water: Whether with a loop, ring, T-piece or manifold installation: iLITE pipes and fittings transport hot and cold water without any significant pressure losses directly to the point of use.  
Heating: Comfortable heating with iLITE pre-insulated pipes and specific fittings.  
Cooling: The best quality from the beginning to the end with direct iLITE transition fittings from our pre-insulated cooling system COOL-FIT to the consumer.

### + Product range

In comparison to conventional axial press systems, iLITE fittings are delivered with pre-assembled sleeves. There are no loose, individual parts that can get lost. No additional tools or steps are required for the expansion of the pipes. With the innovative design of the cone-shaped fitting nipple, the pipe expands by itself while pushing the fitting onto the pipe. This results in the excellent flow rate. Finally, the pre-assembled sleeve is pushed in the reverse direction for a safe and tight connection of pipe and fitting. All of this can be accomplished with one tool in one step.

### + Installation

The pipe is cut to length and connected to the fitting by hand. There is no need for calibration or deburring of the pipe. With the cone-shaped design of the fitting nipple, the pipe is simultaneously expanded while pushed onto the fitting. The pre-assembled sleeve is pressed in the opposite direction over the connection. Due to the self-locking design, the pressed sleeve prevents potential pulling out of the pipe.



# All you need in PE

In close coordination with end-users, GF Piping Systems introduced the ecoFIT piping system based on certified polyethylene raw material. Covering all requirements of the most significant international standards proves the systems' quality and safety. ecoFIT guarantees maximum safety, reliability and performance. It is the ideal choice for any challenging application.



## At a glance

- Material  
**PE**
- Dimension  
up to **d630mm**
- Pressure rating  
**PN16 / PN10**
- Temperature  
**-50 to +60°C**

### + Your benefits

- **Complete system range**
  - Diverse valve range with connection options
  - Proven jointing technologies
  - Customizing, training and sales support
- **Total plastic solution**
  - UV and weather resistant
  - Excellent abrasion resistance
  - Good chemical and temperature resistance
  - No electric / low thermal conductivity
  - Smooth internal surface
  - Excellent resistance to water hammer
  - High impact resistance

### + Your applications

Due to its flexibility, material homogeneous jointing technologies and many other positive characteristics, PE is today's primary used material for new installations. Thanks to the modular ELGEF Plus electro fusion system an appropriate solution can be found for every application. Each individual ELGEF fitting and saddle is made to match and when put together they form reliable leak-proof connections.

### + Product range

With a constant focus on maximum reliability and safety our ecoFIT system assures a sustained high level of product quality and outstanding performance standards in all applications. Certified processes as well as product approvals are part of the active and sustainable quality management system of GF Piping Systems that makes us a reliable partner. Therefore, with our ecoFIT welded system range customers can be assured that their needs are covered and that all required standards are met.

### + Installation

As a pioneer in the field, GF Piping Systems has always placed a high priority on developing innovative jointing techniques to fulfill specific requirements and materials in use. Simple application, chemical resistance, thermal stability and long-term weld strength are the key drivers in our jointing technologies. With a global jointing training program, international machine rental, and a worldwide network of service centers, our customers benefit from expert know-how and practical experience. Butt fusion as well as electrofusion are possible, pending on dimension.



# Revolutionizing sanitary automation processes

The Hycleen Automation System by GF Piping Systems offers a sophisticated package for the automation of drinking water installations. Sensors and controllers integrated in the valves log the required data.

The master controls all processes and supports with its applications a hygienically impeccable, optimized drinking water installation through logging and reporting. The synchronized components are wired to each other in a way which is easy to handle.



## + Your benefits

- **Hygiene** - Uniformly high temperatures and regular water exchange
- **Automation** - Central control and status display
- **Monitoring and Safety** - Logging and reporting as well as remote monitoring

## + Your applications

In hygienically sensitive environments special care must be given to monitoring drinking water systems and keeping them safe. But drinking water hygiene also poses a challenge in large properties with fluctuating water consumption, e.g. hotels as well as in public buildings with a high visitor turnover such as schools or offices.

The Hycleen Automation System offers versatile, ready-to-use applications for a safe and hygienically optimized drinking water installation.

## + Operations

The Hycleen Automation System reliably and simply supports the planning, installation, operation and maintenance of drinking water installations, especially in large building complexes:

- Hydraulic calibration ensures sufficiently high temperatures and prevents biofilm from forming.
- Automatic flushing cycles prevent stagnation and ensure regular water exchange in cold and hot water circulation.

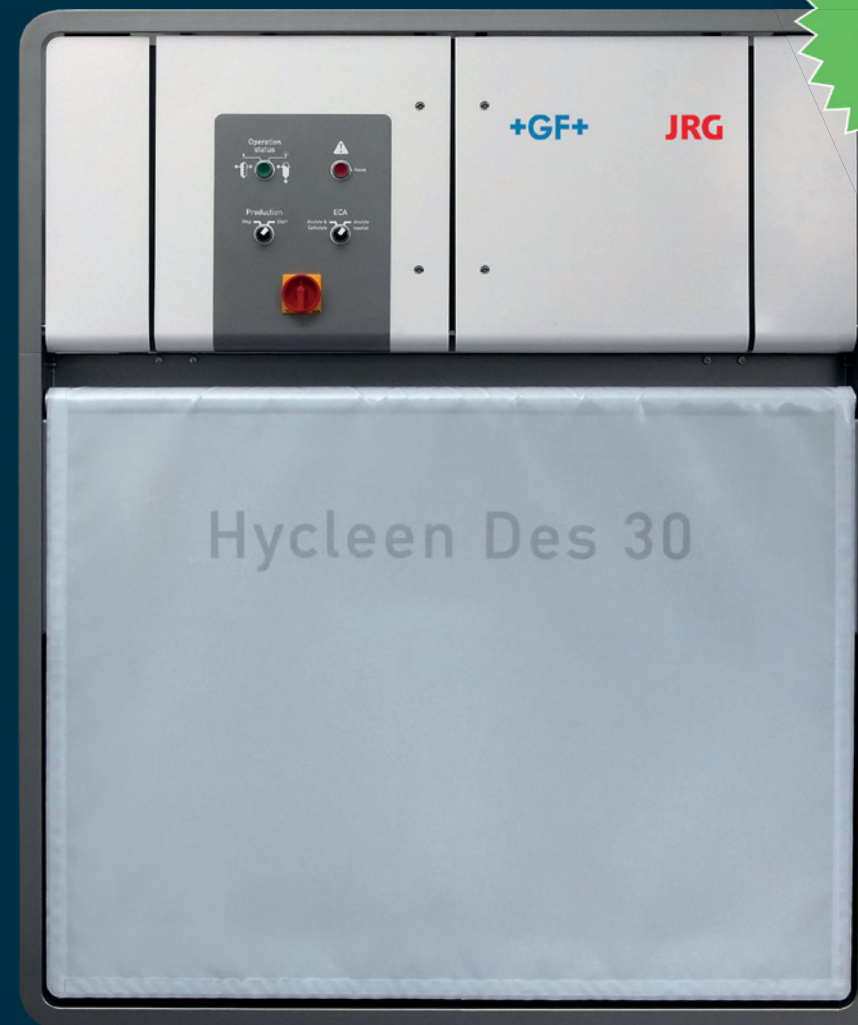
- Permanent temperature monitoring is the most crucial factor when ensuring drinking water hygiene.
- Regular thermal disinfection kills existing germs.
- Continuous data logging of all readings for seamless documentation of the operating values and presentation to a supervisory body.



Hyclean Des 30

# Security of drinking water

Hyclean Des 30 is an environmentally friendly, highly efficient electro-activated disinfection unit with sodium hypochlorite on site. Years of experience with drinking water additives have set high and unique standards.



## + Your benefits

- Highly effective disinfectant against bacteria – small amounts are sufficient
- Depot effect in the entire drinking water installation system
- Disinfectant tested and certified according to the EU Biocides Regulation
- Low risk application; easy to use and no transport/storage of dangerous chemicals
- No micro-biologically induced corrosion
- No development of resistance in micro-organisms; biofilm is removed
- Minimizes microbial-induced corrosion
- Cost-effective technique

## + Your applications

The Hyclean Des 30 unit generates a sodium hypochlorite disinfectant on site that is highly effective against germs, bacteria such as legionella and pseudomonas, biofilm, and viruses. Drinking water hygiene is vital in many facilities like hospitals, hotels, residential complexes, or spas.

## + System

The Hyclean Des 30 is the heart of the whole system and is automatically operated by a central control. For its use on the domestic water inlet further peripheral devices have to be allowed for and adjusted to the type of property. The Hyclean Des 30 system comprises three tanks. The tank with Calzid-Ex is used to automatically clean the reactor at intervals. The high-purity saline solution is produced in the large tank whereas another tank contains the disinfectant.

## + Operation

The systematic solution Hyclean Des 30 uses only softened drinking water and high-purity salt for its highly effective disinfectant, which is characterized by high reliability, minimal by-products and the lowest corrosion potential. After inoculating the drinking water with the electro-activated disinfectant, the solution is neutralized and drained within a short-time, keeping the environmental impact low.



Contain-It

# Secondary Containment System

With pipe split along its length, the Contain-It piping system can be installed over virtually any carrier system. The carrier system can be tested without interference from the containment piping.

Any leaks found during testing can be easily repaired. The leak detection cable can be installed when the split components are assembled, eliminating the need for time consuming cable pulling or the inclusion of lines to pull the cable. Containment piping can be retrofitted over plastic and metallic systems above and below ground, protecting employees, equipment and the environment. Split pipe and fittings are available in 3", 4" and 6".



## At a glance

- Material  
Clear **PVC**
- Dimension  
up to **6 inch**
- Pressure rating  
**n/a**
- Temperature  
**n/a**

### + Your benefits

- Split pipe and fittings
- Fits over virtually any carrier system
- Lightweight, easy to install
- Clear construction for visual leak detection
- Interlocking construction
- Engineered bonding media channels and flanges
- Pre-drilled bonding media injection ports
- Quick and easy fitting clips
- Predetermined fitting clip locators

### + Your applications

The retrofit capability and chemical resistance of Contain-It make it an ideal choice for containment piping of chemical process lines. When you combine the advantages of Contain-It with the complete line of thermoplastic piping systems from GF, you can benefit from one source for all your process and waste piping needs. Contain-It can be used as a secondary containment pipe for gas delivery pipes in buildings.

### + Properties

The clear construction allows for total inspection of the annular space which, in above ground installations, may eliminate the need for expensive leak detection systems. Polyvinyl chloride's chemical resistance, high tensile strength and good impact resistance make it a material that is suitable for a broad range of applications.

### + Installation

Except for the common pipe preparation tools, all you'll need for Contain-It are fitting clips, hammer, pipe clamp, drill, counterbore drill bit, injection gun and mixing tips. Contain-It requires fewer and less expensive tools than other containment piping systems. With Contain-It, there are no gaskets or hinges to align, which simplifies the installation procedure.



# The revolution for efficient cooling

The COOL-FIT PE100 pipes and fittings are insulated with high energy efficient (HE) foam and protected with a robust jacket. COOL-FIT is the corrosion and condensation-free solution for the transport of chilled water inside residential and commercial buildings as well as data centers and for process cooling.

The smooth inner surface of the PE100 pipe ensures minimum pressure loss while the low thermal conductivity of the insulation effectively reduces energy loss and running costs for a life time. The 3-in-1 construction keeps installation time to a minimum.



## At a glance

- Material  
**PE**
- Dimension  
up to **d450mm**
- Pressure rating  
**PN16 / PN10**
- Temperature  
**0 to +60°C**  
(COOL-FIT 2.0)  
**-50 to +60°C**  
(COOL-FIT 4.0)

### + Your benefits

#### For building owners

- Minimized energy loss
- Light weight
- Hard external jacket
- Low CO<sub>2</sub> footprint

#### For planners and consultants

- Easy & accurate planning
- Completely compatible system
- A system for life
- State-of-the-art jointing technology

#### For contractors and installers

- Build more in less time
- Reliable easy jointing
- Simple installation
- Light weight and easy to handle
- Off-site pre-fabrication

### + Your applications

GF Piping Systems offers its unique and extensive COOL-FIT range for all types of cooling requirements. The COOL-FIT ABS Plus and COOL-FIT PE Plus portfolio for industrial cooling is now complemented with the new COOL-FIT 2.0 for cold water applications and COOL-FIT 4.0 for larger dimensions and industrial and commercial refrigeration.

### + Installation

Electrofusion is a safe and reliable way to joint plastic piping systems. The installer only needs to connect the leads to the fitting, scan the bar code and leave the fusion process to the machine.

### + Product range

All COOL-FIT products are pre-insulated. Products which need to be maintained, such as valves, are delivered with removable insulation. The range consists of pipes, fittings, flexible hoses and valves.



Fuseal

# Easy and reliable for corrosive waste

Fuseal® is resistant to the corrosive action of alkalis, alcohols, acids, solvents and salt solutions. Dilute mineral acids and aqueous solutions of acid salts, which are destructive to most metals, do not affect the Fuseal® system. In general, Fuseal® is attacked only by strong oxidizing acids and weakened by certain organic solvents and chlorinated hydrocarbons. Fuseal® will not rust, pit, scale, corrode or be affected by electrolysis.



## At a glance

- Material  
**PP**
- Dimension  
Pipes:
  - 1½"– 12" PPFR (Blue SCH40)
  - 1½"– 6" PPFR (Blue SCH80)
  - 1½"– 18" PPNFR (Black SCH40)
  - 1½"– 12" PPNFR (Black SCH80)Fittings:
  - Electrofusion 1½"– 6"
  - Electrofusion loose coil 8" – 14"
  - Mechanical joint 1½"– 4"
- Pressure rating  
**50psi (~3.45 bar)**  
Highest intermittent temperature 212° F (approx.100°C)
- Temperature  
**0 to +100°C**  
0 to +82°C in continuous operation

### + Your benefits

- Low installation cost with maintenance-free service
- Chemical and corrosion resistance
- Flame retardant PP (above grade), non-flame retardant PP (below grade)
- High temperature, intermittent discharges up to 100°C, continuous up to 82°C
- Can be used for pressurized drainage applications up to 50psi
- Both electrofusion and mechanical joints
- Easy-to-operate, highly reliable electrofusion machines

### + Your applications

Excellent chemical and physical properties make the Fuseal® system ideal for handling corrosive chemical waste solutions present in laboratory and industrial Drain, Waste and Vent (DWV) applications. Fuseal® is suitable for use in chemical and industrial plants as well as in food and beverage, hospital and university laboratories, anywhere where mixtures of acids, bases and solvents are drained. Fuseal® is used to replace many metallic waste systems that are failing due to corrosion.

### + Properties

Fuseal® piping systems have excellent chemical resistance and physical properties which make the system ideal for handling corrosive waste mixtures of acids, bases and solvents present in laboratory, industrial or food and beverage processing DWV applications.

### + Installation

The benefits of the Fuseal® electrofusion joint and the mechanical joint can be combined in a single system. Fuseal® can be used in inaccessible areas: the mechanical joint works well under benches, whenever speedy installation or future disassembly is needed. One fusion machine is enough for all laboratory requirements: Fuseal® and Fuseal 25/50™ for corrosive waste and in plenums, Fuseal Squared® for double containment and PPro-Seal™ PP for DI water loops.

SILENTA PREMIUM

# Soundproof piping system

SILENTA PREMIUM is a three-layer sewer piping system made of PP. However, SILENTA PREMIUM reaches a sound-intensity level of 13dB at 4lt/s flow rate.



## At a glance

- Material  
**PP**
- Dimension  
up to **200mm**
- Pressure rating  
**non-pressurized system**
- Temperature  
**-5 to +97°C**

### + Your benefits

- Provides excellent sound insulation to create an ideal living environment, which can in turn contribute to an increase in property value
- Reduces vibrations and unfamiliar sounds coming from the plumbing system.
- Fire rating tested according to DIN 4102
- High impact resistance
- No additional sound insulation systems required
- Resistant to organic and inorganic acids
- Suitable for pH values from 2 to 12

### + Your applications

SILENTA PREMIUM is used wherever sound protection and high-impact resistance is required. Silence plays a big role in areas such as office buildings, schools, libraries, apartments, hotels, museums, conservatories and theatres.

SILENTA PREMIUM is suitable for hot/cold waste water, acidic liquid transfers and for installations near the sea, where metal pipes are not recommended due to the corrosive environment.

### + Product range

The wide product range allows construction of the entire waste network. Pipe lengths between 0.15m and 6m and diameters from 58mm to 200mm are characterized by a wide choice of fittings.

These particular pipe sizes are based on the large wall thickness and the need for a sufficient bore passage, special connection, and transition fittings of SILENTA PREMIUM soundproof system to allow their connection to other waste systems made of different materials.

### + Installation

Having a great jointing system with push-fit socket, SILENTA PREMIUM ensures practical and rapid installations without the use of electrical appliances or special tools.

Thanks to SILENTA PREMIUM's low coefficient of heat expansion the push-fit joints are capable of absorbing the variations in length of the pipe without taking any particular precautionary measures; it is enough to follow the installation instructions.



SILENTA 3A

# Low noise piping system

SILENTA 3A is a three-layer sewer piping system made of PP material with noise-insulating properties. It is specially formulated and reinforced for non-pressurized domestic drainage in accordance with standards of DIN 4109, DIN 4102, BS EN 1451-1 and ISO 7671.

SILENTA 3A, consisting of pipes and fittings from 40mm to 200mm, achieves a sound-intensity level of 16 dB at 4lt/s flow rate.



## At a glance

- Material  
**PP**
- Dimension  
up to **200mm**
- Pressure rating  
**non-pressurized system**
- Temperature  
**-5 to +97°C**

### + Your benefits

- Provides excellent sound insulation to create an ideal living environment, which can in turn contribute to an increase in property value
- Reduces vibrations and noises coming from the SWV systems
- Fire rating tested according to DIN 4102
- High impact resistance
- Low coefficient of thermal expansion
- Corrosion-free, resistant to organic and inorganic acids.
- Suitable for pH values from 2 to 12

### + Your applications

SILENTA 3A is commonly installed in low noise, high temperature and high impact resistance environments such as office buildings, schools, libraries, apartments, hotels. SILENTA 3A can be used inside of buildings as well as for underground domestic soil, waste and vent (SWV) systems.

### + Product range

The comprehensive range of SILENTA 3A pipes and fittings allows construction of complete Soil, Waste and Vent (SWV) systems. Pipe lengths are from 250mm to 5500mm, with diameters ranging from 40mm to 200mm, complemented by a wide choice of fittings. These pipe sizes are designed to cater for the needs of different internal bores and flow conditions. The special connection and transition fittings of SILENTA 3A make it possible to connect to other SWV systems made of different materials.

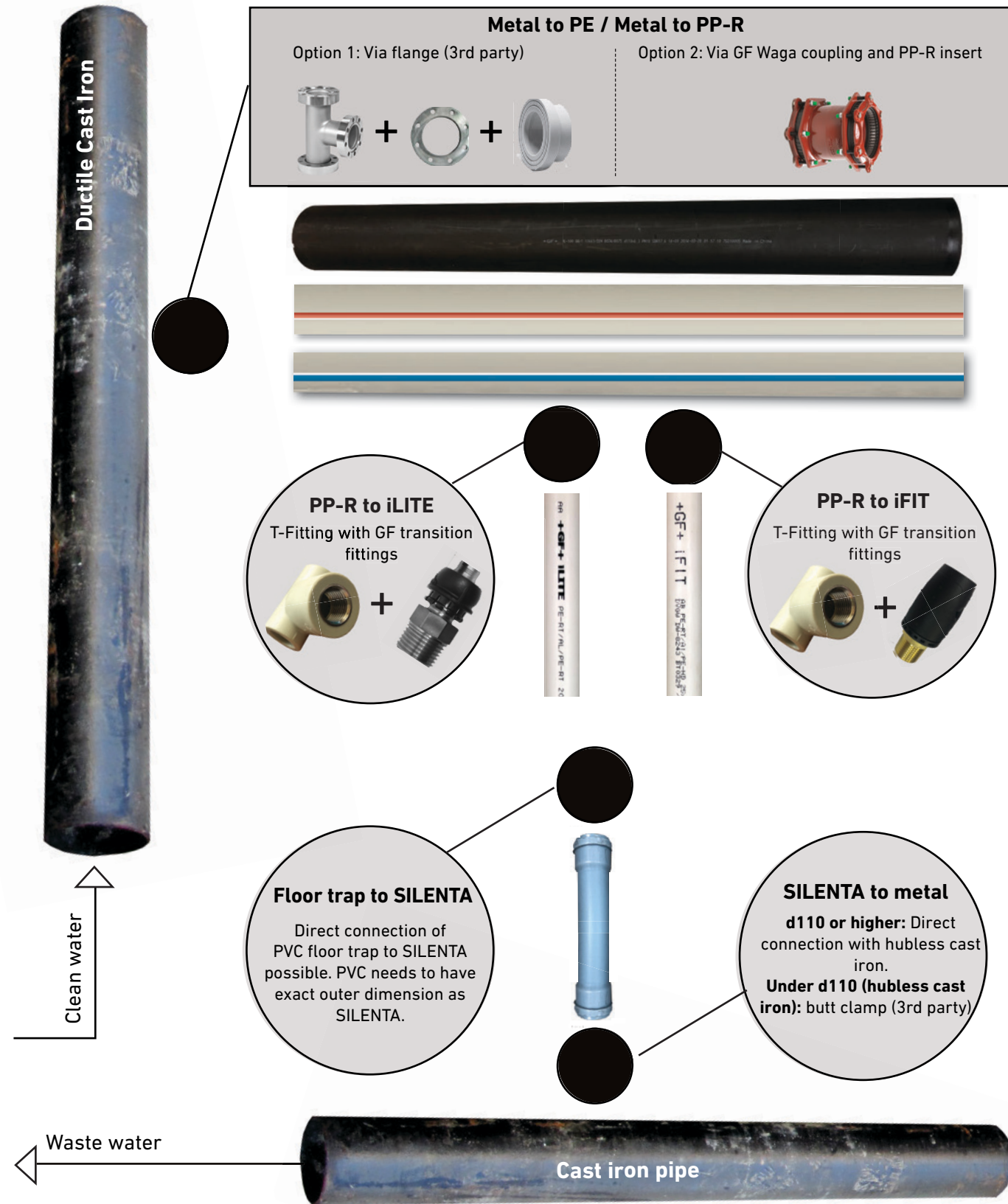
### + Installation

SILENTA 3A push-fit socket jointing system ensures fast and easy installations without the need of special tools. With SILENTA 3A low thermal expansion coefficient, the push-fit joints are able to tolerate the changes in length of the pipe without taking any extra precautionary measures.



# Transitions made easy

With our smart transition fittings, connecting pipes of different materials will be a smooth exercise for your installation team.



# Project references

Our building technology solutions are widely established in different project applications all around the globe. Our expertise and continuous support throughout all project stages make us the preferred partner for our customers worldwide.



**Cambridge Triangle**  
COOL-FIT  
United Kingdom



**Four Seasons Hotel**  
AQUASYSTEM, SILENTA 3A  
Malaysia



**Erlabrunn Clinical Center**  
Hycleen Automation System  
Germany



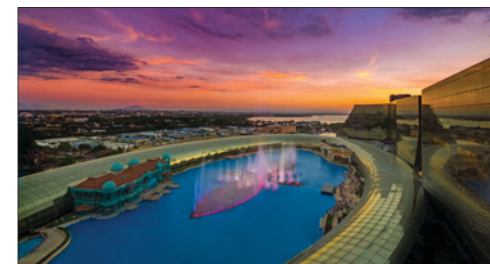
**RoMed Clinic**  
Hycleen Des30  
Germany



**Burj Al Arab Hotel**  
iFIT  
United Arab Emirates



**Manzara Adalar Luxury Housing**  
SILENTA PREMIUM  
Turkey



**Okada Manila - Casino and Hotel**  
Contain-It, AQUASYSTEM, ecoFIT  
Philippines



**Lagunitas Brewery**  
Fuseal  
United States of America



Training and machines

# Develop your team's thermoplastic skills

As a leading provider of piping systems in plastic, we offer our customers not only reliable products, but also a large package of services. When it comes to implementing a project, our customers benefit from a wide range of training courses, either on-site or at our modern training centers worldwide.

**On-site training**

Our experts are available to support our customers locally and conduct training for diverse fusion and jointing techniques on location. The duration and structure of the training depends on the project and the system being installed.

**Training courses**

GF Piping Systems offers a wide range of training courses that allow participants to gain confidence in working with our products and proven jointing technologies. The practical training is clearly defined, structured and adapted to the various levels of participants' experience.

**Machine training**

We have all the machines you might need. We ensure your team knows how to use them before starting the installation. Buy or rental service is available.

	Socket fusion	Butt fusion	Electro fusion
<b>Material</b>	PP, PE, PVDF, PB	PP, PE, PVDF, PP-Natural	PP, PE, PVDF, PB
<b>Maximum jointing dimension</b>	d16 - d125	d40 - d1600	d20 - d1400



Digital data online available

# Reduce costs with our BIM library



For many years, engineering has been carried out with the help of digital design tools. Revit has become the standard for 3D modeling in the construction industry. Interoperability and design capabilities in architecture, structural engineering and MEP (Mechanical, Electrical & Plumbing), make Autodesk Revit the best suitable tool for BIM (Building Information Modeling).

Building Information Modeling (BIM) is a process to design, create and maintain a project with the use of an intelligent 3D model. BIM is about everyone in a project understanding a building through the use of a digital model. BIM contributes to the structuring of project information, improvement of integration, reduction of costs and faster construction times. By 2025, "full-scale digitalization will lead to annual global cost savings"\*

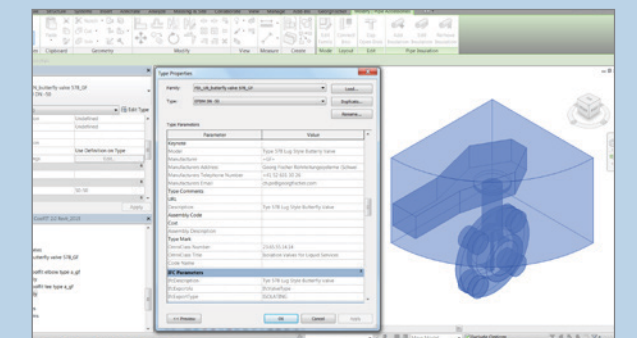
**13 – 21%** in design, engineering and construction phases

**10 – 17%** in operation phase

\* Digital in Engineering and Construction: The Transformative Power of Building Information Modeling The Boston Consulting Group. Year of publication: 2016

**Benefits**

- Revit families can be used in various project stages. Package delivery:
- Embedded bill of material
  - Complete assortment overview and easy copying into specific projects
  - Real life construction length
  - Embedded article or product number and description
  - 3D clearance zone
  - Applicable to imperial and metric systems



Autodesk Revit using COOL-FIT Piping Systems



# In ASEAN at home

Our sales companies and representatives ensure local customer support in all ASEAN countries

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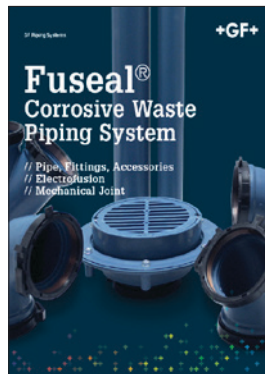
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