

# ELGEF Plus

Electrofusion system



System

# ELGEF Plus – showing the way

ELGEF Plus is the electrofusion system for pressurised piping systems from GF Piping Systems. Convincing due to its pioneering modular concept.



## ELGEF Plus – the system with added value

So the decision has been made to use plastic piping systems? Then without a doubt our complete PE system provides the perfect choice. Each single part has been developed to mix and match effectively with all other system components. Whether for water, gas or other pressurised piping, above or below ground – ELGEF Plus is the exact answer.

The unique versatility of our fittings and saddles has made us the world's leading supplier of plastic piping systems. Our far-reaching and applications-led assortment of components includes, in addition to the modular electro-fusion system, a comprehensive range of spigot end fittings. We provide market-oriented solutions utilising high quality products.

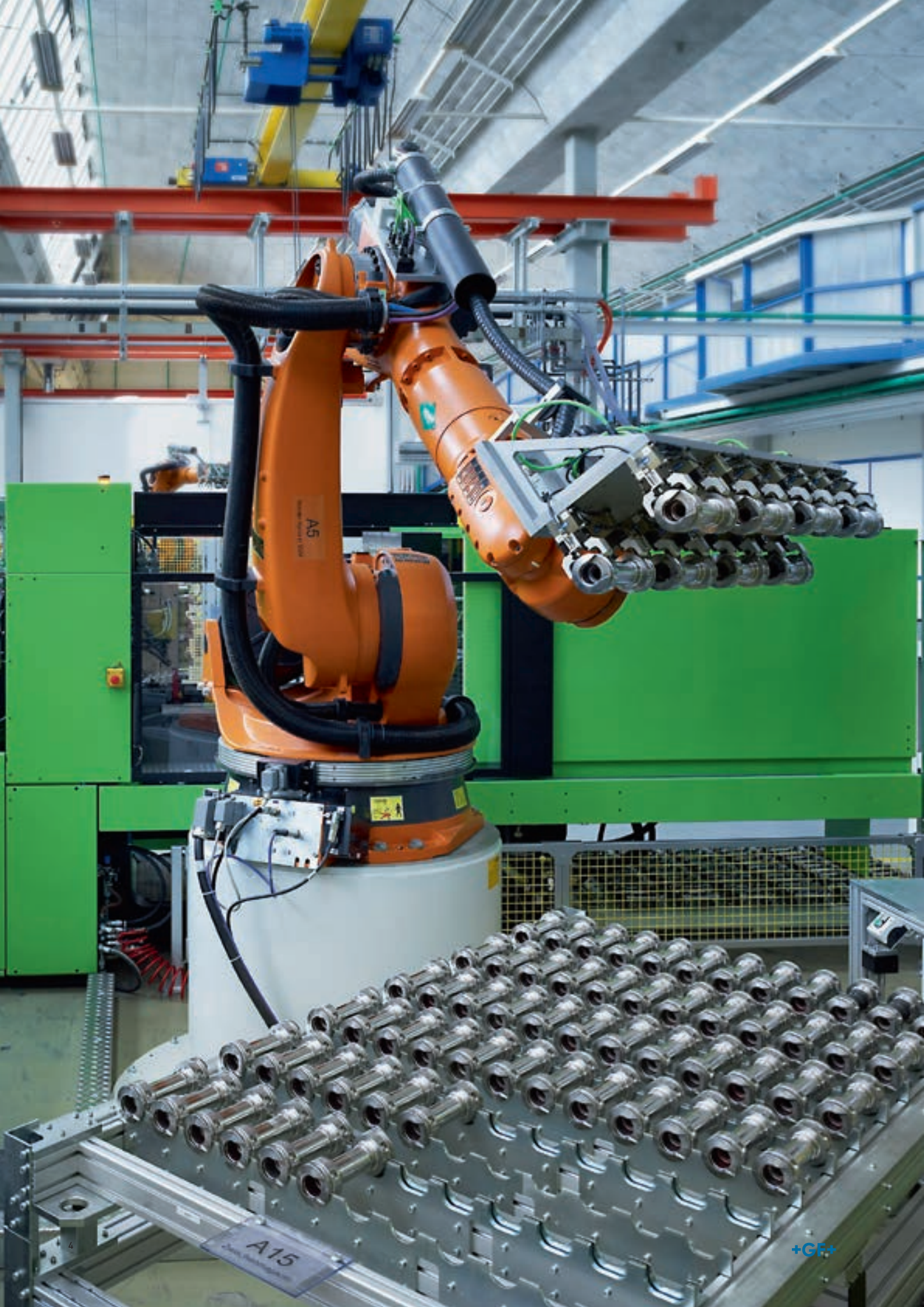
Each individual fitting and saddle is made to match and when put together form reliable leak-proof connections. The outstanding customising possibilities of ELGEF Plus together with its flexibility are convincing and decisive customer benefits. Many different end combinations can be devised using just a few products.

## ELGEF Plus – modularity is the strength

Another hallmark of the ELGEF Plus modular concept is its limited stock requirement. As only a small number of fittings and saddles constitute the system, warehouse costs are low. This attractive feature reflects most positively on associated expenses. Installation engineers create tailor-made solutions on-site according to your individual requirements – quick and flexible.







A15  
Sonderanfertigung



The plus in safety

# ELGEF Plus electrofusion couplers

**ELGEF Plus electrofusion couplers join all PE pressure pipes and spigot fittings quickly and reliably.**

ELGEF Plus electrofusion couplers are available in the size range from d20 to d1200 mm. Couplers are grouped into various size ranges. In this way, individual dimension requirements are fully satisfied. In the smaller sizes a coupler is available which especially fulfills service line conditions. Couplers up to d63 mm can be easily matched with all GF threaded transition adapters.

The active reinforcement used for large couplers in dimensions d355 up to d800 compensates for large differences in outer diameter tolerances. The extra large clearance permits easy assembly and accommodates the pipe ovality often found in practice. The optimised use of materials in coupler manufacturing has a decisive and important environmental advantage.



A electrofusion couplers in the medium-size ranges

## What is gained?

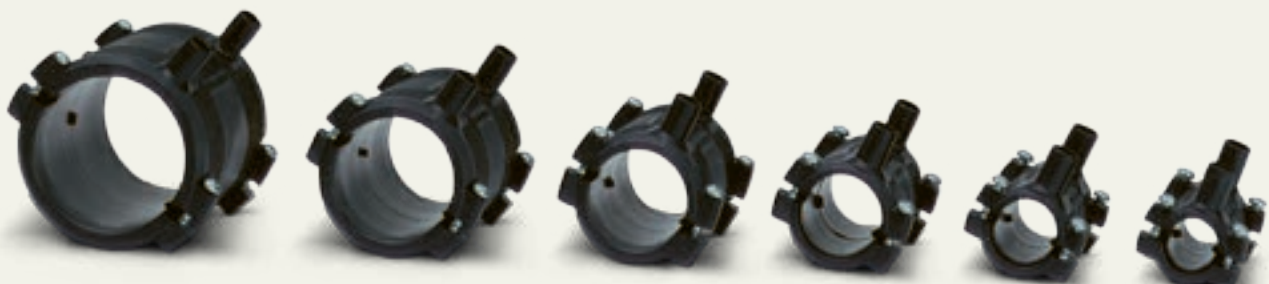
A covered coil winding design prevents any contact between medium and resistance wire. Therefore, the entire piping system has identical surface properties throughout. The coupler design concept provides an installation-friendly assembly. Large inside diameter, easy-to-hold form as well as integrated pipe fixation. The latest requirements have been closely considered when planning each size range. An even distribution of thermal penetration over the entire fusion zone is assured by the dynamic pitch technology of the heating coil.

## + Your benefits

- easy assembly due to the tapered socket mouth
- each electrofusion socket has a smooth inside surface with a protected resistance wire permitting a thorough and simple removal of possible on-site contamination
- the dynamic pitch of the heating coil results in optimum joint quality
- clear identification with large and easily understandable product marking
- large and effective fusion area for your safety
- ideal gap closing characteristics for reliable PE large pipe joints
- integrated pipe fixation up to d63 mm for fast and safe jointing
- removable centre stop up to d160 mm – a coupler for all applications



Electrofusion couplers for large diameter pipes with active reinforcement



Electrofusion couplers with integrated pipe fixation for sizes up to d63 mm

The plus of flexibility

# ELGEF Plus branch saddle

**ELGEF Plus branch saddle – the user-friendly solution for new installations or network extensions in water and gas distribution systems.**

Whether a new installation, subsequent tie-in of mains or service line, hydrant connection, renovation or repair work – our branch saddles are faster and easier to use than standard tees. Branch saddles provide considerable savings with respect to material and overall costs.

## Our tip for efficient installations

Coiled pipes can be laid without any disruption. Then the branch saddle is mounted and the connection for the non-pressure or pressurised pipe is completed. At the same time, the electrofusion outlet simplifies the workload considerably. As a result, the system offers maximum flexibility and economy-of-use. Naturally, all of this has a minimizing effect on total time consumed as well as final costs. Save time and money – with ELGEF Plus branch saddles.

## + Your benefits

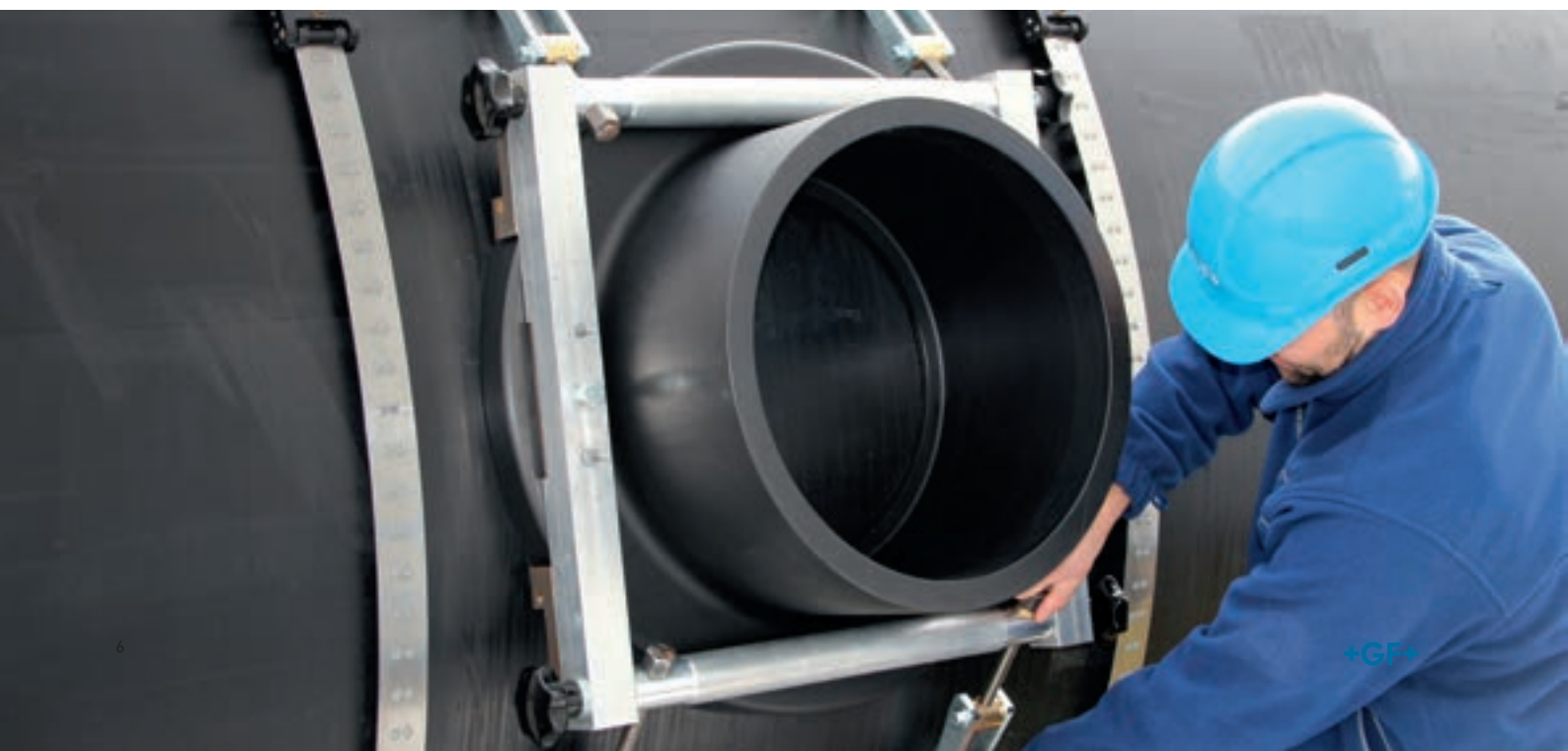
- solution for branch saddle to d2000 mm
- branch fittings can be installed and tapped under pressure – so the main line must not be shut down or bypassed like when using tees
- fewer fittings required resulting in savings for material costs
- lower installation costs thanks to easy handling
- conventional tapping procedures, i.e. the use of existing, conventional tooling is possible
- integrated pipe fixation for the branch outlet



Branch saddles for user-friendly solutions



Sub-assemblies can be easily prepared in advance



# ELGEF Plus electrofusion fittings

**ELGEF electrofusion fittings convincingly satisfy all demands with their attractive practical advantages and ease-of-assembly.**

The electrofusion fitting program is unique for two reasons. Firstly, due to the complete range of elbows, tees, reducers and end caps extending from d20 to d250 mm. Secondly, because of the unlimited possibilities offered when combining such fittings in the sizes d20 to d63 mm with modular transition adapters. On top of this, the harmonised design of our complete range of fittings easily meets your demanding requirements.



Design of small and medium size ranges



Supplied in kit form, on request: the third electrofusion outlet



90° elbows as an example of extensive assortment

## Directional control

The advantages of using electrofusion fittings are offered up to d250 mm. From the wrapping directly onto the prepared pipe end. One fitting, one joint and the direction can be reset. On-site cleaning becomes unnecessary due to the care and attention taken during manufacture and the sealed packaging used for all fittings. A complete installation in the sizes between d20 and d63 mm can be easily pre-assembled without any difficulty using the integrated pipe fixation. The joining procedure is completed when everything is in its final position. The threaded adapters are screwed into position and then the direction is chosen using the fitting. This is a crucial advantage in difficult conditions.

## + Your benefits

- single source supplier – complete range even up to the very largest dimensions
- extensive variety of combination possibilities and ease-of-assembly with the modular transition adapters
- easy user-friendly pre-assembly due to integrated pipe fixation up to d63 mm
- highly automated manufacturing and process technology for flawless products
- tees may be connected using couplers or reducers

The plus of infinity

# ELGEF Plus transition adapters

The ELGEF Plus transition range offers many practical solutions with just a few components.

## Transition coupler



## Transition fittings





### Your System

The unique ELGEF Plus modular range of transition fittings permits wide product utilisation but is, nevertheless, limited to just a few component parts: transition couplers, 45° and 90° transition elbows, transition tees and transition reducers. All bodies are available either in brass or stainless steel with male or female threads and also with a loose collar. Therefore, one can decide in advance which fitting and transition should be taken from stock and combined for particular on-site applications. Of course, each individual fitting and transition combination is available as a separate kit.

### Your application

All components that enable a transition from metal to PE pipes form a very important part of any water and gas distribution network. They are frequently used as tie-ins for PE piping in existing systems. Also for repair work. Additionally, water meters can be installed in an uncomplicated and reliable manner using such transitions. The ELGEF Plus rotating transition enables pumps and metal flow control valves to be connected without complications to fixed line components even under difficult on-site conditions.

## + Your benefits

- modular concept – diverse combinations – only a few parts
- matching, fully interchangeable fittings and transitions
- low costs due to minimized stock volume
- brass and stainless steel transition adapters are available
- rotating transition adapters provide easy installation



The plus in variety

# ELGEF Plus saddles

**ELGEF Plus modular saddles offer the ideal connection for all purposes.**

ELGEF Plus modular saddles comprise a complete product package – tapping saddles, tapping saddles with Gas-Stop, pressure tapping valves, stop-off saddles, repair saddles and spigot saddles. The branch fitting – also called saddle – is the heart of our modular system. All requirements are covered with just a few components.

## Your application

When extending or replacing existing distribution networks, maximum flexibility can be assured with the use of our ELGEF Plus modular saddles. The saddles can be used equally well for water distribution networks up to 16 bar or for gas distribution purposes up to 10 bar working pressure as well as for a large variety of industrial applications. A complete saddle connection can be completed at full working pressure or under non-pressure conditions.

**Greater possibilities, increased flexibility, less stock – a contradiction? Not with the ELGEF Plus modular system.**

## + Your benefits

- complete system with just a few parts
- reduced stock volume with savings of up to 50%
- 360° rotation of outlet permits infinitely variable positioning and wide freedom of movement during assembly
- vertical or horizontal fixation possible – exactly as site conditions dictate
- easy, flexible and fast attachment, therefore, substantially lower costs



## The branch saddle at the heart of the modular system



### Technical documentation

QR codes attached to the products supplement the training program and enable you direct access to technical details, installation instructions and videos from anywhere in the world. Additional documents such as quality certificates and approvals can also be obtained quickly on site.



# The proven technology

## Spigot fittings

**GF spigot fittings provide a natural extension to the ELGEF Plus electrofusion program. Proven technology with a broad and diversified range.**

The extensive spigot fitting range from GF is the natural complement to the ELGEF Plus electrofusion program. Elbows, tees, bends, reducers, end caps and flange adapters in the sizes from d20 to d1000 mm are all available. These spigot fittings can be easily combined with ELGEF Plus electrofusion couplers or fittings, illustrating their pronounced diversity. This variety and wide range are especially interesting for those important applications. Additionally, reducers and reduced outlets can prove indispensable under difficult conditions.



Wide range with respect to diameter and outlet



For example, end caps extend from d20 to d1000 mm



Typical fitting types

### **This much is certain**

The well-known and well-proven spigot fitting is, technically up-to-date. Decades of injection moulding experience in combination with the latest processing technology place our products at the peak of quality. The exclusive use of high-grade PE 100 material assures efficient utilisation even under demanding conditions.

### **+ Your benefits**

- wide assortment of fittings and sizes
- high quality manufacturing
- full compatibility with existing piping from PE 63, PE 80 and PE 100
- long spigot end versions are suitable for both electrofusion and buttfusion jointing – assuring on-site flexibility
- individually wrapped in PE foil to protect against on-site contamination

Reliable and efficient

# ELGEF Plus Ball Valve

**The PE ball valve – manufactured in our established Swiss company – represents the highest level of quality and reliability**

The focus of the ball valve is safety and system compatibility, added with the ability to offer our customers a comprehensive range of products with numerous connection options and diverse accessories. The ELGEF Plus ball valve (d20–d110 mm) is an absolute lightweight and its handling is not at all complicated. Thanks to the homogenous, reliable and leak-free jointing method of electrofusion, the complete piping network can be constructed in PE materials. So there is no critical interaction among different materials in the piping system.

## Your Application

The ELGEF Plus ball valve from GF Piping Systems has been specially designed for use in underground gas distribution piping systems. The ball valve is made entirely of plastic and is therefore resistant to corrosion. Based on a service life of well over 50 years, maintenance is not required. Because they are compatible with the ELGEF Plus system, the ball valves can be implemented flexibly and connecting them to other components in the modular ELGEF Plus system is simple with all the options available.

## + Your advantage

- Effective ball seal for a safety reserve
- Traceability barcode (d20–d110 mm) for complete traceability of all valve components and materials
- DVGW approved for gas (d20–d225) and water (d20–d110)
- Maintenance-free
- Easy connection of extension spindle according to the uniform standard DVGW GW336
- Easy installation with electrofusion or butt fusion technology
- Additions to piping system are cost-efficient with compatible components from the ELGEF Plus modular system
- Higher cost efficiency due to corrosion-free operation





## MSA fusion control units

The range of MSA electrofusion units offers the right unit for every application. The units provide comprehensive solutions from basic data recording of jointing to highly sophisticated wireless user interface.

### Your MSA electrofusion units

Complex demands with respect to today's electrofusion technology for water and gas distribution networks are entirely fulfilled by MSA units. These units are valued because of their user-friendliness, easy handling and especially their performance. For each application, one can choose exactly which unit is needed – no more, no less. Robust aluminum die cast housing, close attention to quality during manufacture, careful selection of components, low overall weight and latest technology – are traits of all these control units. All MSA work in combination with the WeldinOne, an intuitive software suite, which offers you more opportunities to make your job perfect:

#### Your advantages with the WeldinOne:

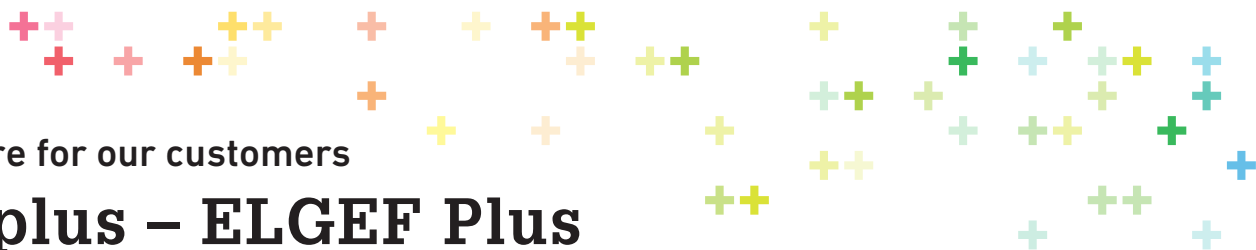
- combination of fusion data recording and photos taken during pipes preparation
- piping system documentation according to ISO 12176-4 in secure PDF files
- geo-localization of the trench and map snapshot creation
- operator badge, job number and tool barcode creation, to improve traceability at jobsite

### + Your benefits

- reliability in your fusion process
- improved work quality
- long lasting equipment
- user guidance in your language
- worldwide support and service network







We do more for our customers

# Your plus – ELGEF Plus

Our highly technical production methods assure maximum levels of quality. In all respects. It also simplifies logistics. Any possible product contamination is avoided. Additionally, the fully-automatic manufacturing process completely eliminates inadvertent faults. The high quality level is under constant supervision. Just-in-time delivery and, last but not least, a good price are additional benefits of the fully automatic manufacturing process.



### Competent training

Our intensive training courses give users a chance to receive the knowledge and skills required for all piping system products. We offer such courses, for example, in our modern Training Centre in Schaffhausen. The courses can also be held in one of our sales companies or on the premises of one of our partners or distributors based around the world.

Creating added value for your satisfaction is the declared goal of GF.



### Local presence and advice – worldwide

Competent practice-related operator training and close customer support are important success factors.

In addition to top grade products, we offer a first-class customer-focused service. GF is very active on a global basis with sales organisations in 24 different countries and production locations in North America, Asia as well as Europe. We are represented in a further 40 countries through well-trained distributors and partners. Therefore, from the planning stage to realization close and intensive customer support is assured by our local specialists. And this throughout the world.



### Customizing – tailor-made solutions for our customers

GF has the right solutions for practice-related problems. We realize special customer-oriented solutions as well as tailor-made products trimmed to your particular needs.

# Worldwide at home

Our sales companies and representatives ensure local customer support in over 100 countries

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