

## Reference

### Clean water for 150'000 inhabitants

**Providing large cities with drinking water is never an easy task. Outdated systems can cause problems such as leakages or contaminations. To secure a reliable, economical and sustainable water supply in the future, the Waterworks Lublin (Poland) decided to renew a part of their old steel piping system. The new Polyethylene piping system from GF Piping Systems now serves nearly half of the 350'000 inhabitants.**



Picture 1: Installation of ELGEF couplers

Molewski Sp. z.o.o. realized the project from May to November 2014 for the Waterworks Lublin. Established in the market since 1978, the well experienced construction company is specialized in building and environmental engineering such as road building and trenchless technology.

The transport line leads right through the city center. So this project required the re-lining method, to be as space-saving as possible and due to the limited number of branch connections in the city.

#### **Deciding for plastics means deciding for the future**

The advantages of plastic in comparison to metal pipelines were obvious and made GF Piping Systems the desired provider for the jointing technology. Compared to metals plastics are resistant to corrosion and abrasion, warranting a long service life. When professionally installed 100 years can be expected. They score particularly well because of their low weight, which pays off especially in the areas of transportation and processing. Energy costs can be reduced with targeted layout planning and optimal sizing contributing to a steady flow rate. Furthermore plastic solutions have a considerably smaller carbon footprint than traditional materials – an important factor in designing sustainable and future-oriented piping systems.



Picture 2: ELGEF coupler and MSA 2.1 welding machine

### **Cutting-edge couplers for safe connections**

For the project the installation company used GF Piping Systems electrofusion couplers for water and gas applications. They ensure a quick and reliable connection of pipes and spigot fittings with active reinforcement - a unique jointing principle. The functioning of the coupler has its origin from the manufacturing technology. The outer pipe section is pressed over the inner pipe section. During the fusion process, the active reinforcement fully effects: The heat in the fusion zone reduces the stiffness of the inner ring and the reinforcement ring pushes actively from the outside to the inner ring. Thus, larger gaps can be closed more quickly and the expansion of the coupler is inhibited. During the cooling process the constant pressure from the outside makes the coupler shrink onto the pipe. This patented principle ensures a perfect welding result. Even under difficult site conditions the electrofusion couplers of GF Piping Systems convince with a long lasting and safe connection.

#### **Benefits:**

- The extra-large inner diameter of the coupler permits easy assembly and accommodates the pipe ovality often found in practice
- The smooth fusion zone ensures an ideal fusion result
- Reduced installation time without pre-heating or use of additional equipment
- One path-limited fusion indicator each per fusion zone for immediate check
- Exclusive use of PE material – safe connection even at low temperatures
- No special welding machine required, all current GF welding machines are suitable
- QR-code on each label links you directly to a dedicated web page enabling the online access of instruction videos and technical documentation

#### **360° services**

Being a well-known brand on the market GF Piping Systems also offered the best package of service – fittings, machines, tools, trainings, documentation and technical support. This project in Poland where GF Piping Systems new electrofusion coupler with active reinforcement technology in dimension d710mm were installed is a great success. It will help secure the

water supply for coming generations.

**For further information please contact**

PR

Julia Obst, Marketing Specialist PR

T +41 (0) 52 631 31 19

[julia.obst@georgfischer.com](mailto:julia.obst@georgfischer.com)

Technical requests

Miriam Basler, Global Market Segment Manager Water & Gas Utilities

T +41 (0) 52 631 34 63

[miriam.basler@georgfischer.com](mailto:miriam.basler@georgfischer.com)

**About GF Piping Systems**

GF Piping Systems is a division of the Georg Fischer AG group of companies which also includes GF Automotive and GF Machining Solutions. Founded in 1802, the Corporation is headquartered in Schaffhausen, Switzerland, and wholly owns 126 individual entities, employing 14,100 employees across 31 countries. In 2014, Georg Fischer AG generated revenues totaling CHF 3.79 billion. GF is a globally preferred partner for the safe transport of liquids and gases, vehicle weight reduction and high-precision manufacturing technologies.

For more information, visit [www.gfps.com](http://www.gfps.com)

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