

Water & gas distribution

# Cost-efficient gas transport line

Intermediate pressure line for supplying biogas  
Energie 360° Zurich, Switzerland

Economic installation thanks to pre-fabricated pipe modules and simple assembly of ELGEF Plus couplers.



# Reliable, efficient and corrosion-free.

When renewing an old steel transport line in Zurich's intermediate pressure network, those responsible for the gas supply from Energie 360° encountered a narrow pipeline in the city area and the high groundwater level along the River Limmat. Customized pipe segments, in which ELGEF Plus electrofusion couplers play a key role, are creating a time-efficient and economic solution.

## Project background

Energie 360° supplies the greater Zurich area with environmentally-friendly energy solutions. Along with conventional natural gas, biogas is also fed into the network. A regeneration project in the city area involved replacing a 5km long intermediate pressure line made from steel. Installing the polyethylene transport line with a diameter of d630mm presented particular challenges for the teams at Energie 360° and FREI Rohrleitungsbau AG - the limited space available due to the existing utility cables and traffic limitations in the downtown area, and furthermore a pipeline that was laid along the River Limmat in some parts and below the groundwater level in others.

## Selected technical solution

Axel Mathis, Network Infrastructure Project Manager at Energie 360°, soon realized that only a polyethylene transport line with a diameter of 630 mm would be able to meet the requirements concerning corrosion resistance and durability. Thanks to customized modules - segment elbows and ELGEF Plus couplers - the traffic had to be restricted only briefly. During installation, the time schedules had to be efficiently coordinated with the Zurich water utility, since the groundwater table had to be lowered in certain places. The focus had to be on a corrosion-free solution made of polyethylene.

## Improvements achieved

The use of PE extends the service life of the pipeline and guarantees resistance to corrosion. Thanks to the customized modules, installation was time and cost-efficient, traffic flowed again quickly and the groundwater level was rapidly raised again. At sensitive connection points to the underpasses of existing utility lines and, given the limited space, the installation team of FREI Rohrleitungsbau AG very much appreciated the easy installation of the ELGEF Plus couplers by GF Piping Systems with active reinforcement.



Pre-fabricated level modules: Segment elbows and ELGEF Plus coupler.



Energie 360° has relied on proven ELGEF Plus products for years.

## Customer benefits

- Corrosion-free PE network guarantees durability despite piping being laid below the groundwater level.
- Especially with narrow space, ELGEF Plus electrofusion couplers with active reinforcement offer fast and problem-free installation.
- Safe and reliable connection technology.
- Excellent logistics and expert support.

## Your contact

Georg Fischer Piping Systems Ltd  
Ebnatstrasse 111  
8201 Schaffhausen / Switzerland

Telephone +41 (0)52 631 11 11  
mail@georgfischer.com  
www.gfps.com

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