GF Piping Systems

ELGEF Plus – Big Dimensions

Expansion of the district cooling network in Munich

Ecological building cooling thanks to Swiss technology from GF Piping Systems Munich, Germany

Welding technology from GF Piping Systems and ELGEF Plus Fittings help district cooling lines reduce CO_2 emissions by 1000 t annually.

Simple, reliable and sustainable.

The district cooling network is a far more ecological way of keeping a building cool than an air-conditioning system, since it can use the cold temperature of natural water bodies. And because the demand for ecological air conditioning continues to grow, Munich City Utilities (SWM) is further expanding the district cooling network downtown. Thanks to the long-standing collaboration, the reliable components from GF Piping Systems were chosen for the new district heating lines.

Project background

SWM considers climate protection and the reduced dependency on fossil fuels as a central challenge for the future and is therefore consistently further expanding the regenerative energy supply in the heating and cooling sector. Thanks to the natural low temperature of groundwater and city brooks, the energy required to achieve low temperatures is around 70 % less. Consequently, the CO_2 emissions from air-conditioning systems can be reduced by some 1000 tons annually. Pipelines supply offices, shops and domestic households with centrally cooled water, which then circulates continuously in a loop. "This is much more efficient than a building air-conditioning system. This loop also offers significant benefits in terms of handling because there's no extensive plant technology, simply a transfer station in the basement", explains Wolfgang Kustermann from Technical Sales at GF Piping Systems.

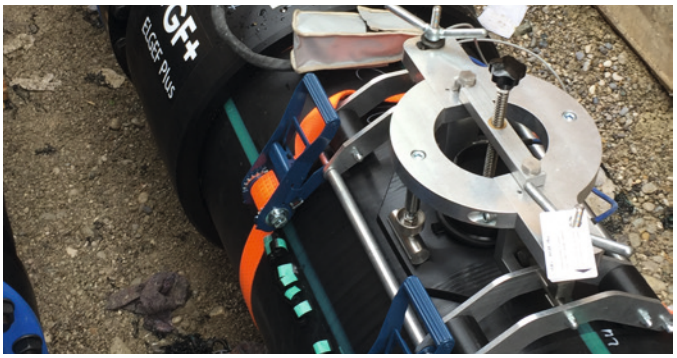
Chosen technical solution

The company Pro Bau Ingenieur- und Rohrleitungsbau from Passau was awarded the contract to install the PE100 district heating lines in the Schwanthalerhöhe and Laim project section. Polyethylene is a highly durable material that creates reliable welded joints, making it the ideal choice, both ecologically and economically, for use in district cooling networks. ELGEF Plus electric welding sleeves and nozzle fittings, as well as butt welding machines from GF Piping Systems were used in the installation process. Integrating the connection to the building into the network using ELGEF Plus proved to be an especially cost-efficient solution.

Improvements achieved

Thanks to optimized products and tools and customized plans, the company supplied the joining technology for the project from a single source. "GF Piping Systems offers extremely well-matched products, devices and tools. This optimized our operations and we were able to lay the lines quickly and securely", says Andreas Weber, Construction Supervisor at Pro Bau Ingenieur- und Rohrleitungsbau, reporting on the installation process.

Simple and reliable: butt welding machine GF 500 and GF nozzle fittings.



A ELGEF Plus connection saddle integrates the transfer station in the basement into the central district cooling network reliably and cost-efficiently.

Customer benefits

- **Because district cooling networks made of polyethylene are corrosion-free, they are both durable and economical.**
- **The environmental impact from PE is five times less that from cast iron.**
- **Reliable and cost-efficient creation of branches with ELGEF Plus terminal clamps.**
- **Simple and reliable: High quality and well-matched components, machines & tools from GF Piping Systems.**

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