

ELGEF Plus – Big Dimensions

PE remote cooling line – Ultimate energy efficiency

**PE cooling lines safeguard the 2050 Energy Strategy,
Aarau, Switzerland**

**GF Piping Systems complete system for
PE district cooling lines: Reliable, durable,
maintenance-free and cost-efficient.**

Reliable and durable.

eniwa



Energy provider Eniwa AG is enabling Aarau to implement the 2050 Energy Strategy by realizing a centrally controlled heating and cooling system based on renewable energies in this energy town. The innovative district cooling system made of polyethylene offers impressive versatility and reliability during installation, as well as a long, corrosion-free useful life.

Project background

In order to meet the growing demand for renewable energy to heat and cool office buildings, energy network provider Eniwa AG is offering a new, centrally controlled remote heating and cooling system in downtown Aarau. The innovative heating and cooling system is operated by renewable energy sources. HODEL SHLK AG, the pipeline construction company, has been commissioned to build the network. The 15 km long distribution network, with nominal diameters of up to d450 mm, is set to be expanded in the districts in stages until 2026. A special safety concept for man and machines was required in the escarpment (30–40°) of the "Schanzrain" section.

Chosen technical solution

Due to the high temperatures, the district heating system is executed with insulated steel lines. The ideal pipe material for the remote cooling lines, on the other hand, is polyethylene (PE). One fundamental benefit is the durability of PE district cooling lines – they cannot corrode. In addition, the pipe connections can be welded more simply and with a greater degree of reliability than the directly comparable steel pipes used for remote district heating lines.

Improvements achieved

Eniwa AG confirms that the polyethylene remote cooling system is a sustainably viable and cost-efficient investment. Pipeline construction company HODEL SHLK AG emphasizes that the high-quality and precisely matched components from GF Piping Systems, as well as the reliable and user-friendly machines and tools, have proven to be especially efficient in the escarpment section where work under safety-relevant conditions is required. Another economic benefit became clear for both companies in the time and cost efficient, retrospective integration of service connections using ELGEF Plus branch saddles. The timely and solution-oriented service by GF Piping Systems employees received praise from all parties involved in the project.



Simple and fast connection: ELGEF Plus branch saddles d450 mm x 225 mm.



Torfeld Telli section: 2 steel and 3 PE lines.

Customer benefits

- **Durable, corrosion-free PE remote heating system.**
- **In a comparison of materials, PE performs very well both economically and ecologically.**
- **Reliable and fast creation of branches with ELGEF Plus branch saddles.**
- **Quality of GF components, machines & tools.**
- **Efficient, local, solution-oriented support from GF.**

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