

# Plastic piping systems ensure efficient temperature control and a reliable water distribution

Agie Charmilles SA, a brand of the United Machining Group, specializes in Electrical Discharge Machining (EDM) and is at the forefront of EDM technologies such as wire-cutting, die-sinking and hole drilling. Founded in 1954, the Swiss company has always put an emphasis on innovation and continuous development. After deciding to centralize its production, research, development, and services at its overhauled site in Losone, Switzerland, Agie Charmilles selected extensive solutions from GF.

#### Project background

As part of the complete overhaul, a number of state-of-the-art buildings were constructed, including an office building above the existing production facility as well as a new machine warehouse, storage center and training center. This meant that the new building infrastructure would face the double challenge of ensuring an efficient distribution of drinking water throughout the office spaces and managing its ambient temperature as well as the process cooling for the operation of the facility's machines. Swiss flow solutions provider GF therefore supplied GF Sanipex Classic, GF Sanipex MT and GF JRG Valves for the water distribution and COOL-FIT 2.0/2.0F/4.0/4.0F to meet comfort cooling and process cooling demands.



GF's Sanipex line is the world's first plastic pipe-in-pipe drinking water installation system featuring water-carrying inner pipes made of cross-linked polyethylene or multilayer composite materials. The extensive system was completed with 168 JRG valves made of corrosion-resistant bronze. COOL-FIT 2.0 and 4.0 as well as the fire-retardant COOL-FIT 2.0F and 4.0F pipes were implemented both in the office spaces and in the production area where temperature control is critical – totaling 7 kilometers of pre-insulated thermoplastic piping. GF Sanipex MT was additionally used for the cooling water connections to fan coils and radiators.

#### **Achieved improvement**

Thanks to factory pre-insulation, corrosion-resistance and electrofusion jointing, the COOL-FIT systems not only enabled a fast installation process but also improve energy efficiency, longevity, and cost-effectiveness compared to post-insulated metal alternatives. The proven cone grip union and flared clamp connection technologies of the Sanipex product family also ensured a fast installation, while their durable materials ensure a hygienic water distribution. As a result, both systems support Agie Charmilles in their continuing mission to develop highly innovative EDM technologies.

## Where next?



The on-site support in selecting the optimal products and the assistance given to the installers was very appreciated.



More than 7km of COOL-FIT pipes and about 168 insulated valves are installed to ensure comfortable temperatures and efficient operation of the machines.

### **Customer benefits**

- Pre-insulation and electrofusion resulted in a fast installation despite a tight schedule
- Corrosion-resistant materials and safe connections ensure a reliable operation of the the cutting edge facility
- COOL-FIT's combination of PE100 media pipes and factory pre-insulation enable a more energy-efficient cooling system and help make Agie Charmilles' facility more cost-efficient



