



EXTREME COLD BECAME THE SOLUTION at Glasgow University



KEY INFORMATION

Customer

FES Limited
Glasgow University, Western
Campus Development

Timeframe

October 2019 – October 2021

SOLUTION

District heating system

Length/dimension

800 metres ø219/355 series 2
with branches to new building
plots varying in size from 88/180
to 114/225 and all with fusion
welded joints

SALES RESPONSIBLE

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isoplus' knowledge of the industry helps create a unique solution in glasgow

Knowledge of the industry and special know-how are the keys to efficient and innovative solutions – and isoplus UK really made use of it when the company delivered and installed 800 metres of preinsulated pipes of the isoplus 2 series to the Glasgow University Campus.

Combining the new and the existing district heating networks required that the old valves in the system had to be replaced. This was a challenge for isoplus UK, because 46 m³ water had to be drained off and then replenished again.

This would have meant an expansive and prolonged shutdown with mayor inconveniences to the university. Therefore, isoplus UK decided on a unique solution, which allowed the campus to maintain normal activities during the installation of our new series 2 of Ø 219/355

valves. The solution was to cryogenically freeze the existing network.

Cryogenic freezing means cooling with liquid nitrogen at extremely low temperatures, usually below -150°C, which is applicable for quick freezing of the circulated water so it will form a plug of ice.

The method can be applied on site with almost all kinds of liquid media and more or less all pipe types and sizes – whether installed horizontally or vertically.

The nitrogen evaporates almost instantly and does not impact the environment because about 80% of the atmosphere consists of nitrogen. Once the valves had been replaced, the ice plugs naturally thaw out and the district heating system got back to normal operation.

isoplus was happy to provide an economical solution, which even spared the customer for the inconveniences of a shutdown.