

# CASE STORY

## District cooling (DC) LA DÉFENSE



In Paris some of the first and also the largest European District Cooling systems exist. In the area of La Défense, Europe's largest business district SUC, Société Urbaine de Climatisation, a subsidiary of International Group Dalkia, operates a district cooling system that supplies chilled water to be used in air conditioning systems in the buildings. SUC is also responsible for the production and distribution of cooling in the towns of Coubevoie and Puteaux, along the Seine River.

The La Défense production facility feeds a fully 10 km network that runs from building to building, cooling 1.5 million square meters of office space. The water circulates in a closed circuit leaving the refrigeration units at 4.5°C and returning, after absorbing heat from the buildings, at 14.5°C. The cooling facility has a production capacity of 76.5 MW. Despite the size of the equipment used, the facility is a discrete one, located in a plain building, one that is soundproofed and well integrated into the urban landscape.

The condenser cooling circuit of the installation is cooled by water pumped from the Seine River thanks to two major pumping stations. In order to protect the plate heat exchanger (PHE) from clogging and fouling by the water from Seine River a Bernoulli Filter model BSG 500 is part of the installation. The BSG 500 is tailor-made for this installation with an outlet nozzle size of DN 400 in order to match the connection size of the PHE.

### Facts and figures

Customer: Société Urbaine de

Climatisation (Dalkia EDF)

Location: La Défense, Paris

Application: District Cooling

Filter model: 1 x BSG 500

Filtration: 2,0 mm

Operating flow: 3280 m<sup>3</sup>/h

Operating pressure: 1,5 bar g

Design pressure: 6,5 bar g



**BERNOULLI**  
SYSTEM