

At stake: 36,500 heating customers' comfort

Pumps are at the very heart of any district heating system – they are charged with the challenging task of pushing water through miles and miles of piping to reach consumers' heating systems. When Verdo – a green energy provider with a modern Combined Heat and Power (CHP) plant in Randers, Denmark – needed to replace its main pumps, the plant seized the opportunity to renew its fleet altogether.

TOPIC:
District heating

LOCATION:
Randers, Denmark

COMPANY:
Verdo

The situation

Many district heating plants have an ambition of reducing their CO₂ and NO_x emissions. But Verdo's green ambitions are higher than that. Unlike many power plants that are fuelled by fossil fuels, Verdo is fuelled 100% by biomass, a renewable resource made of organic materials. The plant's management also wants it to be the greenest energy company in Denmark measured by CO₂ emissions and the amount of energy used.

One of the ways to fulfil that ambition is to fuel the plant with completely CO₂-neutral wood chips and wood pellets. In fact, Verdo has made sure that even the transportation of the wood to the plant is as CO₂ neutral as possible.

Project Manager Jesper Thillemann Petersen led the new main pump project.

“We supply district heating 365 days a year to more than 36,500 households, and our city is growing,” he says. “We have a big responsibility towards existing customers, future customers and the environment. That means we have a very clear idea of what we want from our main pumps: extreme reliability, a strong track record, and a high hydraulic efficiency.”

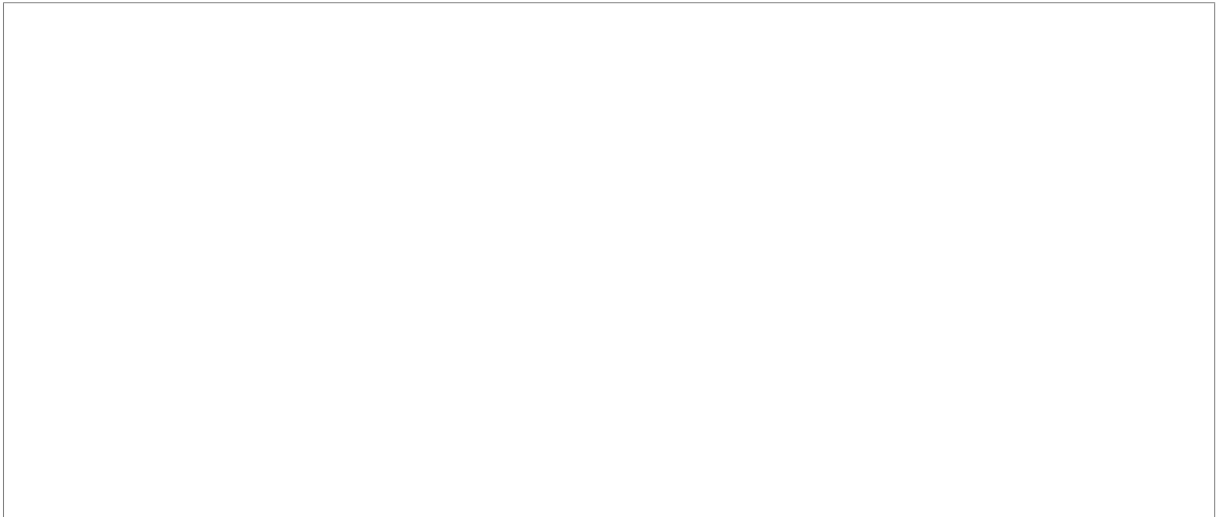
He continues, “It means a lot that 36,500 households depend on the pumping solution that we choose – their everyday comfort is at stake.”

The solution and outcome

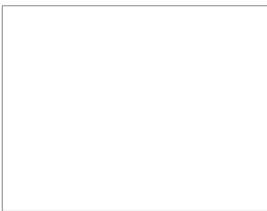
Grundfos was able to offer Verdo the perfect combination of size, reliability and efficiency. The plant was supplied with Grundfos’ largest HS pumps, complete with IE3 motors for high efficiency, top pull design for easy maintenance and double volute design for balanced hydraulics. The plant is now ready to supply the growing city of Randers with reliable, green district energy for decades to come.

“Grundfos’ solution met all our requirements and then some. We have increased our thermal capacity and are ready to supply our growing city with reliable, green district heating,” Jesper Thillemann Petersen says.

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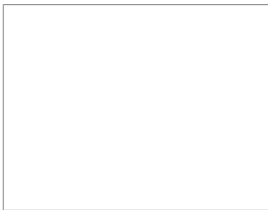
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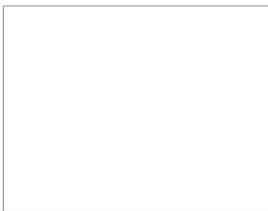
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