

## District Heating / Hot Water

District heating as we use it today has been developed in the early days of the 20th century – but what *is* district heating?

The main concept is to supply hot water or steam to heat public buildings, apartment blocks, offices etc. from a central heating plant. The hot water is distributed in insulated pipe systems running underground. In many capitals in western, eastern and northern Europe big district heating networks are installed, transporting heat over many kilometres with minimum heat loss to the consumers.

The big advantage of a central heat production is that environmentally friendly sources can be used and combined. The biggest part is sourced from caloric power plants using the waste heat from the electric power production. This is called co-generation – electricity and heat produced at the same time is doubling the efficiency compared to single electrical plants from 40% to over 80%. Other important sources are the heat from waste incineration plants, industrial processes and more and more from green energy sources like biomass/biogas/geothermal/solar.

But district heating is not only limited to big cities, since 1980 – after the second oil crisis – this concept was also translated into smaller scale – it started in countries with big natural resources for the wood related industry, like Austria. The local farmers were invited to start a business as an energy supplier – to build up local district heating systems in their villages. This became a real booming business and other countries were following. Biomass/Biogas are considered as 100% CO<sub>2</sub> neutral energy sources – and for such purposes only waste wood or especially planted trees/straw/grass are used. All big players in the oil business have already got their share in this business.

Another kind of district heating is the central supply of heating for a school, university, hotel resort, an airport or a shopping centre. This is called group heating.

Flexalen products offer many solutions for such projects....

- Σ Flexalen 600 pre-insulated pipes - transporting district heating / district cooling / potable water
- Σ Flexalen SL - transporting district heating / district cooling / potable water
- Σ Flexalen 1000+ The multi functional system - triple and quad pipe arrangements
- Σ Flexalen Protectube - the multi function protective duct system
- Σ Flexalen 60 - small bore insulated pipes for interior cooling connections
- Σ Flexalen Solar Light - stainless insulated steel pipes for connection to solar collectors

For further information please contact

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