

smart pipes, clever solutions



District Heating Pipes

DHP Product overview

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Common

About DHP

DHP District Heating Pipes specializes in the manufacturing and sales of pre-insulated piping systems. In addition, the company offers services in the field of network monitoring as well as the planning and design of supply networks.

Our manufacturing facility is equipped with the latest state-of-the-art technologies and production systems to provide the district heating market with reliable, innovative and sustainable solutions.

Our experts have more than 30 years of experience in the manufacturing and sale of district heating products and pre-insulated piping systems, ensuring that DHP stands for quality, precision and energy efficiency. Our production site in Budapest guarantees fast, personalized service and flexible cooperation with our partners.

Our mission is to contribute to the development of energy-efficient cities of the future through intelligent systems and solutions. Our goal is to be a reliable, long-term partner in the planning, development and modernization of supply networks for district heating and cooling, local heating and cooling, as well as industrial applications.

We are fully committed to ESG principles (Environmental, Social and Governance) and deliver energy-efficient, environmentally friendly and cost-effective systems. Through our work, we aim to help create a sustainable future in Hungary and across Europe.





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Pipe System

DHP Single pipe

The DHP single pipe is a versatile energy pipe primarily used for sustainable transport in heating and cooling networks. It is also well-suited for modern production applications, such as in the food and oil industries. It is manufactured using conventional, discontinuous production methods, with an HDPE jacket for buried installation or a spiral-seam jacket for above-ground pipelines, whereby the service pipe, PUR foam, and outer casing form a bonded composite system.

High-quality polyurethane foam insulation (PUR, CFC-free, cyclopentane-driven) ensures long-lasting insulation properties. The HDPE jacket is EVOH coated, impact-resistant and waterproof. All DHP components are perfectly compatible and easy to install on-site.

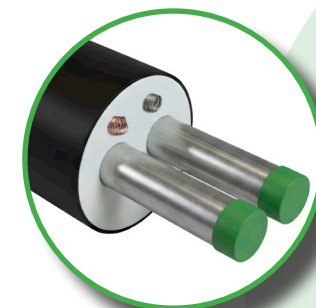
- Available dimensions from DN 20 (3/4") to DN 1000 (40") in classical, discontinuous production
- Three insulation series
- Various pipe grades such as P235GH according to EN 253, DIN EN 10216/10217
- Thermal conductivity $\lambda_{50} = 0.027 \text{ W/(m}\cdot\text{K)}$
- Operating temperatures at least according to EN 253 and higher, 25 bar pressure
- Up to 85 °C static design temperature no limitation of laying length
- Available as 6 m, 12 m, 16 m pipe bar, further lengths available on request
- Nordic system (EMS) or/and others for network monitoring

DHP Double pipe

The DHP twin pipe offers an additional solution for transporting district heating and cooling to consumers with maximum ecological and economic benefits. As an effective complement to single pipes it is also manufactured using the proven classical production process.

The DHP twin pipe: Optimal insulation performance in a compact heat exchanger (equivalent to single reinforced pipes). Narrower trench widths save space and can significantly reduce construction costs.

- Available dimensions from DN 20 (3/4") to DN 200 (8") in classical, discontinuous production
- Three insulation series
- Various medium pipe grades such as P235TR1/TR2/GH according to EN 253, DIN EN 10216/10217 or others, e.g., including coating
- Thermal conductivity $\lambda_{50} = 0.027 \text{ W/(m}\cdot\text{K)}$
- Operating temperatures at least according to EN 253 and higher, 25 bar pressure
- Up to 90 K temperature difference [T] between flow and return temperatures
- Up to 85 °C statical calculation temperature no limitation of laying length
- Available as 6 m, 12 m, 16 m pipe bar, further lengths available on request
- Nordic system (EMS) or/and others for network monitoring



Components

Elbow and Branch for Single- and Double pipe

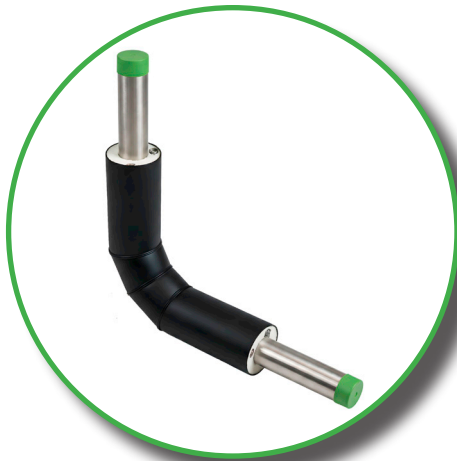
In addition to manufacturing pipes, DHP also produces various components such as elbows, branches and others to expand its product portfolio. Bends and branches are manufactured for both DHP single and double pipes.

Single Pipe

Standard 90° and 45° bends are available for single pipes; special angle bends are available upon request. Branches are offered as parallel branches, 45° T-branches, 90° T-branches, and branches for draining/venting. Reducers or special components are also available on request.

Double Pipe

DHP also manufactures 90° and 45° bends for horizontal installation and bends for changes in elevation for double pipes. Branches are offered as straight 90° branches for double pipes or as twin 90° branches for transitioning from one double pipe to two single pipes. Furthermore, drains/vents, reducers and Y-pipes (also for the transition from single pipe to double pipe) are included in the program.



Shut-off valve for Single pipe and Double pipe

The range of molded parts is complemented with pre-insulated ball valves or shut-off valves. Accessories, including actuators and extensions, are also available for these components.



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Coupler

Connection technology casing pipe

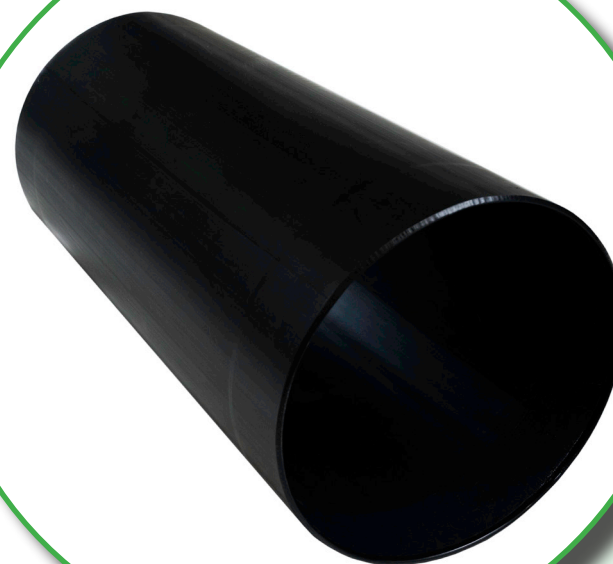
Various sleeve designs are available to meet different technical requirements. All PEHD connection sleeves are used to ensure a non-positive safety and create gas- and watertight casing-pipe connection. The casing pipe is provided with a diffusion barrier on the inside (EVOH coating) to counteract cell gas exchange and thus the ageing of the PUR insulation foam. After the extrusion process, the casing pipe is expanded, and in the case of cross-linked casing pipes, radiation cross-linking is carried out to improve the chemical, mechanical and thermal properties.

In most cases, sleeves can be supplied in custom lengths, such as for post-insulation of welding seams on uninsulated one-time ball valves or fitting pieces.

The insulation and sealing of all types of sleeves may only be carried out by certified, qualified and proven specialists.

Jacket pipe coupler types

- Non-crosslinked PEHD-shrinkable sleeve
also available as reduction sleeve, double-reduction sleeve and end-sleeve
- Crosslinked shrinkable sleeve
- Non-crosslinked electric welding sleeve (with or without axial seam)
- Spiro-sleeve made from sheet metal, suitable for pipes outside of the trench



Accessories

Other parts

End cap – is used as protection against splash water for the pipe end inside the building. Additionally, the end cap serves as a frontal protection for the PUR foam against diffusion and cell gas exchange, which positively affects aging.

The end cap must be installed before connecting to the continuation pipe.

Sealing ring – prevents moisture ingress at wall penetrations. The sealing ring must also be applied before connecting to the continuation pipe. Sealing rings are also available as sealing inserts in a pressure-tight (watertight) design.

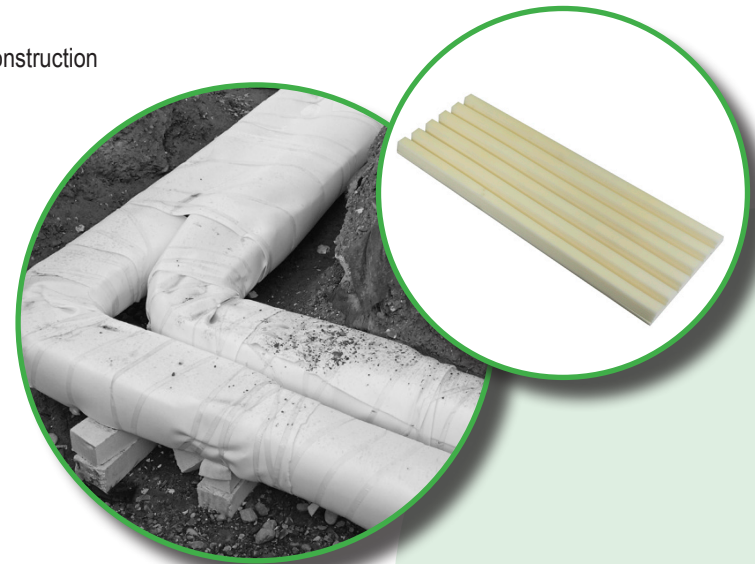
Expansion pads - are designed to accommodate the movements of DHP piping systems at L-, Z-, and U-bends, branches, reducer and end couplers, shut-off valves, and at high and low points. Expansion pads are required in a supply network wherever such expansion may occur. Minimum clearances between the pipes and the trench wall must be maintained for the installation of the expansion pads.

The length and thickness of the expansion pads areas are determined by the pipe statics.

The expansion pads must be installed by certified, qualified and tested specialist personnel.

Pipe supports - made of PUR foam serve as supports for laying pipe sections and fittings and may remain in place during the construction of the sand bedding or backfilling of the trench. Any timber blocks used must be removed.

Warning tape - Tape for marking the pipeline route.



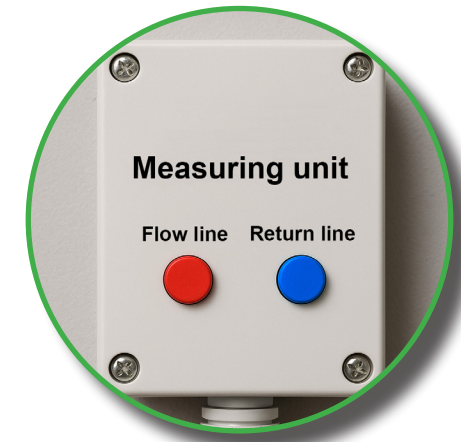
Leak detection

The DHP leakage detection systems, supplied as standard with the Nordic system (2x copper wire), also known as EMS-system according to DIN EN 13160, are highly effective, automated monitoring solutions designed for long-term network surveillance. These systems have been specifically developed for both cold and hot supply networks and are therefore an ideal choice for a wide range of applications. Even in networks with multiple identical wiring systems (e.g. 4x copper wire) or with different wiring systems combined (e.g. 2x copper wire, 2x other), the entire network can be detected and optional also located by a single control unit.

The use of advanced digital technology ensures the highest level of accuracy.

Thanks to a wide range of accessories, the system can be easily adapted to the specific requirements of each project while remaining cost-efficient. The dedicated control software that manages the entire network automatically records all measured data. Faults are detected in real time and precisely located. As all individual units use the same software, commissioning and integration time is minimized.

This results in maximum automation, precise leakage detection and optimal cost efficiency.



Planning and Project work

Planning and design of pre-insulated pipelines for direct-buried, above-ground, and installations within buildings or structures require specialized expertise. The DHP engineer will handle this task efficiently and with a high level of competence. This includes the preparation of material lists, detailed solutions (pipe statics), calculations, and drawings — all executed promptly, accurately, and in line with the initial proposal.

Naturally, this process is carried out in close consultation and supported by advanced computer technology.

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Information

Production und Sales company:



DHP Kft.

Kunigunda utja 45
1037 Budapest III.
HUNGARY
Tel.: +36 30 756 1962
E-Mail: info@dhp-group.eu



Markets:

Hungary
Romania
Slovenia

Croatia
Bosnia and Herzegovina
Kosovo

Serbia
Bulgaria
North-Mazedonia
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