HEAT NETWORK SOLUTIONS
REHAU. Your district heating partner
WHAT IS DISTRICT HEATING?

Future proof technology

Heat is transported via an underground pre-insulated pipe network from large centralised boilers to individual buildings.

- Heating and hot water supplied to each building
- Individual building temperature control
- Any heat source can be connected
- Heat source can be changed making it a future proof technology

Benefits

- Carbon Reductions
- Environmentally Friendly
- Cost Savings
Possible heat sources

Gas

Air source heat pump

Ground source heat pump

Water source heat pump

Biomass

Anaerobic digestion

Energy from Waste

Waste heat
DESIGN SUPPORT
What we offer our customers

REHAU’s key designers are trained CIBSE Heat Network consultants and can assist with the following using bespoke design software.

**Pipe Sizing**
Effective use of pipe sizes can help reduce both capital costs and heat losses

**Optimisation of flow/return temperatures**
Achieving lower flow/return temperatures improves heat network efficiency

**Diversity**
Applying a more realistic diversity can reduce plant sizes and pipe sizes

**Pipe Routing**
Having a more optimised route will reduce material and installation costs

**BIM Modelling**
BIM models are available for our district heating products

**Heat Loss Calculations**
Heat loss calculations are essential to compare different pipes and network layouts.
SERVICE YOU CAN RELY ON
UK Based team

Largest UK stock available
- Full cutting service
- 25-160mm in both RAUVITHERM and RAUTHERMEX stocked locally

Proud to support UK production
- Only UK manufacturer of PE-Xa district heating pipes
- Estimated 29% CO₂ reduction
- Production started in 2012

Estimated 29% CO₂ reduction

Largest UK stock of district heating pipes

UK sales & technical support
- 4 regional sales offices across UK/ROI with specialist district heating sales team
- On-site support available
- CIBSE-approved CPD presentations on heat networks

Customer Support
Installation benefits of REHAU PE-Xa

- Optimised trenches due to PE-Xa flexibility
- Self-compensating in the ground, no need for expansion joints
- Coils up to 570m long
- Retrospective connections are possible
- Savings up to 30% on installation versus steel pipes
REHAUstands for quality. As a pipe manufacturer, the quality of materials and workmanship directly impacts its performance and lifespan.

**PE-XA QUALITY**

Tried and tested

REHAU stands for quality. As a pipe manufacturer, the quality of materials and workmanship directly impacts its performance and lifespan.

**Tested**
PE-Xa quality tests for over 38 years in the laboratory

**Longevity**
AT 70°C and 8.5 bar, our PE-Xa pipes will last over 50 years

**Research & Development**
Our R&D department created a special PE-Xa recipe for our district heating pipes to offer improved thermal performance

**Certification**
REHAU certified according to ISO 9001
COMPLETE PIPE SYSTEM
High performance pipes, shrouds and fittings

RAUTHERMEX
The efficient solution for heat networks in 20 - 160mm
- Bonded PU foam with a best in class lambda value of 0.0216 W/mK
- Largest flexible coiled pipe on the market (140mm)
- Largest DUO pipe on the market (75 DUO)
- RAUTHERMEX Plus available with thicker insulation
- 10 bar option available
- No requirements for expansion provision
- 5 year product warranty

RAUVITHERM
The flexible solution for heat networks in 25 - 160mm
- Low weight and high flexibility
- Non-bonded PEX foam
- Only UK manufactured PE-Xa district heating pipe
- Coils up to 330m
- WRAS approval for potable water applications
- Now available up to 160mm
- Outer layer of foam is bonded to the outer jacket
- 5 year product warranty
RAUVITHERM heat shrink shrouds
- Heat shrink solution
- Can be used with either RAUVITHERM or RAUTHERMEX, or to combine both pipes
- Externally tested to 0.5 bar watertightness to EN 489
- Uses high performance PU foam insulation

RAUTHERMEX clip shrouds
- New 2nd generation with improved sealing rings allowing up to 20° bending of pipe
- No hot works
- Externally tested to 0.3 bar watertightness to EN 489
- Uses high performance PU foam insulation

REHAU Everloc™ compression sleeve technology
- No hot works
- 750 million joints installed worldwide
- Up to 50% faster connections
- Full range of tees and terminations
- Minimal bore reduction
To meet growing demands for large heat networks, REHAU now offer pre-insulated PP-R pipes. These can transport over 16MW of heat at 80/50°C.

**5 Reasons to use PP-R pipes**

- No expansion bends – this saves both installation and material costs
- Lightweight and easy to handle
- Faster welding time than steel (40 mins for 200mm PP-R vs 2-4 hours for 200mm steel)
- Excellent corrosion resistance
- Can be combined easily with REHAU’s PE-Xa for fully polymer heat network

<table>
<thead>
<tr>
<th>Medium pipe</th>
<th>PP-R blue faser composite pipe</th>
<th>Casing pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>External diameter</td>
<td>Dimension</td>
<td>External diameter</td>
</tr>
<tr>
<td>200 mm</td>
<td>DN 150</td>
<td>315 mm</td>
</tr>
<tr>
<td>250 mm</td>
<td>DN 200</td>
<td>400 mm</td>
</tr>
<tr>
<td>315 mm</td>
<td>DN 250</td>
<td>450 mm</td>
</tr>
<tr>
<td>355 mm</td>
<td>DN 300</td>
<td>500 mm</td>
</tr>
</tbody>
</table>
Did you know

PP-R 200mm pipe is 4x lighter than standard 200mm steel pipe
World exclusive!
REHAU NEXUS HOT TAPPING SYSTEM
First ever for PE-Xa district heating pipes

World exclusive, unique to REHAU. Allows for adding retrospective connections to existing heat networks which have used REHAU district heating pipes. REHAU NEXUS has been externally certified to TÜV SÜD for external certification of its performance.

Benefits

- Up to 50% cost savings
- Up to 80% faster to install than conventional methods
- Maximum reliability to 110°C due to silicone safety seal
### CASE STUDIES
Installations from across the UK

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Product</th>
<th>Heat source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portmeirion Village, North Wales</td>
<td>Cottages, hotel &amp; other public buildings</td>
<td>3km of RAUTHERMEX</td>
<td>1MW Biomass boiler</td>
</tr>
<tr>
<td>Marine Court, Dunbeg</td>
<td>Residential development</td>
<td>1.1km of RAUTHERMEX</td>
<td>Biomass</td>
</tr>
<tr>
<td>Eleanor Street, Sheffield</td>
<td>Social housing</td>
<td>2km of RAUVITHERM</td>
<td>1.9MW Gas boiler</td>
</tr>
<tr>
<td>Gaunts Estate, Wimborne</td>
<td>Farm dwellings and countryside buildings</td>
<td>1.6km of RAUVITHERM</td>
<td>Anaerobic digestion</td>
</tr>
</tbody>
</table>
### Hill Park Drive, Glasgow

<table>
<thead>
<tr>
<th>Type</th>
<th>Residential development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Over 1km of RAUTHERMEX Plus</td>
</tr>
<tr>
<td>Heat source</td>
<td>Air source heat pump</td>
</tr>
</tbody>
</table>

### Soho Farmhouse, The Cotswolds

<table>
<thead>
<tr>
<th>Type</th>
<th>Private estate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>7km of RAUTHERMEX</td>
</tr>
<tr>
<td>Heat source</td>
<td>1MW Biomass boiler &amp; 3MW fossil fuel back up</td>
</tr>
</tbody>
</table>
The REHAU portfolio.
Systems for installation professionals:

Underfloor heating and cooling
Heating and plumbing
Ground source energy
Ground-air heat exchanger
Sewer pipes
Cable trunking

Follow REHAU Renewables

The REHAU Docs app contains all relevant documents about our systems. Whether you need brochures, technical information, installation instructions or a catalogue – the app provides fast access at any time.

More information and download at: www.rehau.co.uk/districtheating