



36<sup>th</sup> Euroheat & Power Congress  
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# Solutions for small District Heating projects

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# Brugg Pipesystems

- Part of the Brugg Group
- Sales turnover 2012: approx. 143 Mio. €
- Employees: 420
- Production plants:
  - Brugg Rohrsystem AG, Kleindöttingen, CH (headquarter)
  - Brugg Rohrsysteme GmbH, Wunstorf, DE
  - German Pipe GmbH, Nordhausen, DE
  - Brugg Pipesystems is represented all over the world by 7 subsidiaries and more than 40 partners in over 30 countries.



# Four market fields



**District Heating and Cooling**



**Industry**



**Petrol Stations**

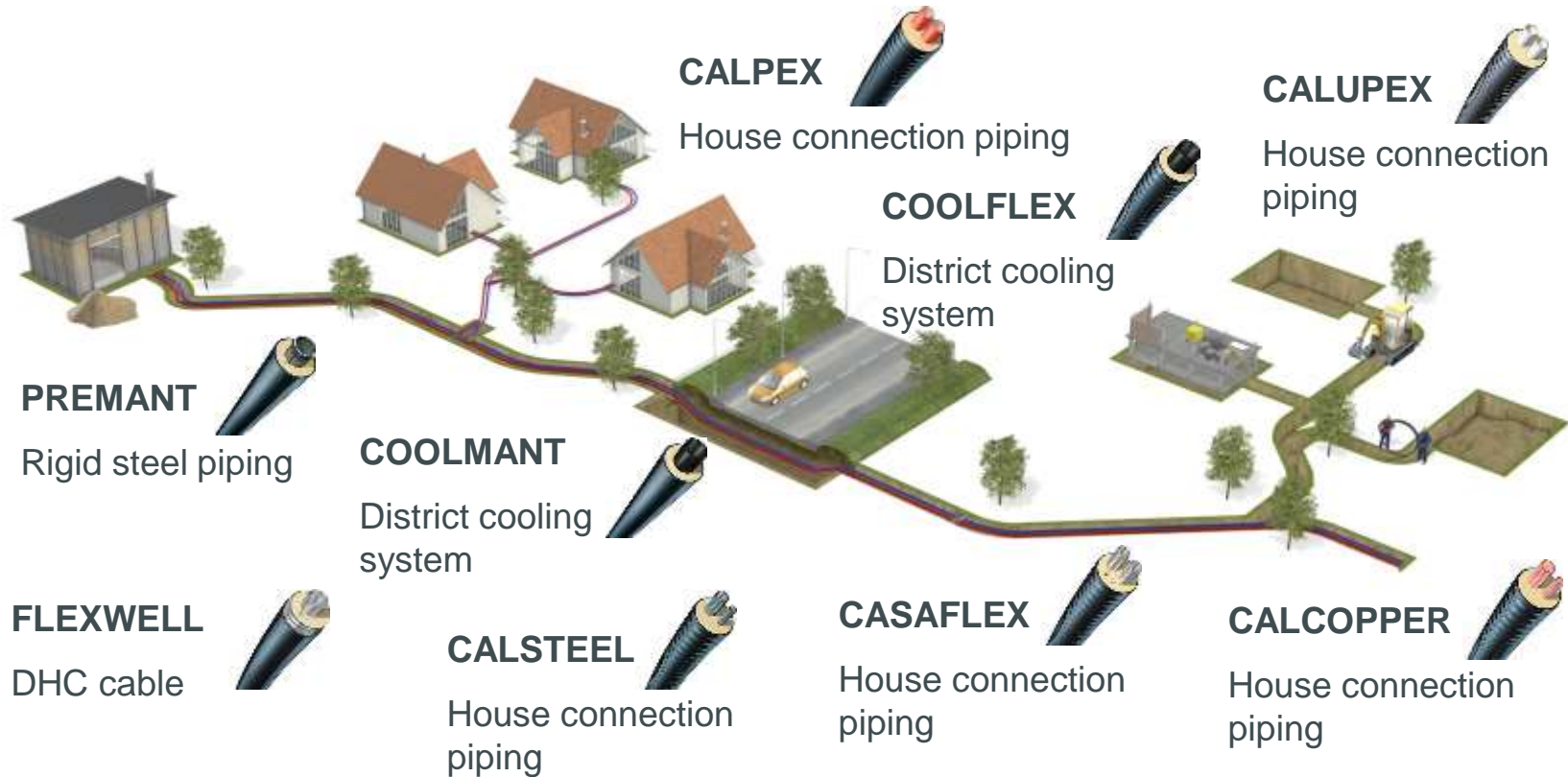


**System Packages**

- Brugg Pipesystems offers the most extensive product range on the world market for district heating and cooling.
- More than 40 flexible and rigid pipe systems as well as over 20,000 articles in the fluid supply sector.



# Product range DHC





# CALPEX– Product range



- CALPEX UNO: Ø 25 - 160 mm
- CALPEX DUO: Ø 25 - 63 mm
- CALPEX QUADRIGA: Ø 25 - 40 mm



- Carrier pipe: PEXa
- Insulation: Polyurethane- foam (Pentane-blown)
- Lambda value: 0.0216 W/mK
- Temperature range: up to 95°C
- Pressure range: up to 6 bar (Heating)  
up to 10 bar (Sanitary)







# CALPEX – Deep waves for tight curves



- Flexibility increased by up to 24 %
- Up to 30 % smaller bending radii
  - CPX 22/76: 0.7 m → 0.45 m
  - CPX 50/111: 0.9 m → 0.6 m
- Pipes up to 30 % longer
  - CPX 22/76: 780 m → 1040 m



- Pulling test to investigate the force exertion



- Bending radii tested as per EN 15632-1/-2



# CALPEX in XXL: CPX 140/202



**Connect up to 200 houses,  
flexible with CALPEX**

- 80 metres per unit
- 70'000 kg/h
- 1.6 MW with  $T_{\Delta}$  20°C
- 2.4 MW with  $T_{\Delta}$  30°C



# Historic city centre of Guimarães, Portugal




## Reference data:

- 650 m CALPEX, DN 32 - DN 100
- 700 m COOLFLEX, DN 50 - DN 100
- 2 Gas heating boilers
  - 2 x 390 kW
  - Design temperatures: 80/60°C
- 2 Chillers
  - 2 x 430 kW
  - Design temperature: 7/12°C





 Energy-efficient

 Flexible

 Fast



**Build for a historic city centre with a city wall which is almost one thousand years old:**

- Easy to install  
Around, below and above barriers  
(obstacle)
- Easy and fast post-insulation without screws
- Fewer connections in the ground because of long delivery lengths



# Triesen, Switzerland

## Reference data:

- 1802 m CALPEX UNO & DUO (DN 25-80)
- Wood heating boiler (80 m<sup>3</sup> silo): 500 kW
- Oil heating boiler (10'000 l): 350 kW (peak load)
- Total connected houses: 82
- Savings of oil: 120'000 l/ year





# Aquardens, spa garden in Valpolicella



## Reference data:

- 325 m of CPX H 125/182
- 200 m of CPX S 32+22/111
- 20 m CPX S 40+28/126
- 35000 m<sup>2</sup> wellness with the biggest expanse of water in Europe and 220 whirlpools
- 5.200 m<sup>3</sup> thermal water from 130 meter depth.
- Savings of oil: 1'500 l/ year



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# Thank you for your attention

The right product in combination with industrial waste energy or renewable energies results in a environmental friendly future.

Brugg Pipesystems provides also for your specific application the right solution. Please ask our sales team or visit [www.pipesystems.com](http://www.pipesystems.com)