



FLEXIBLE PIPING SYSTEMS - ISOPEX

Leading provider of pre-insulated piping systems
for district heating and district cooling.



Introducing isoplus Piping Systems

The isoplus group is made up of a number of separate manufacturing and sales companies throughout Europe.

With more than 30 years of experience in the manufacture of preinsulated pipe systems, and employs over 1,400 people.

It is our goal to be the industry's fastest, most flexible and most reliable partner.

Flexible

We are innovative and see opportunities instead of restrictions. It's a case of seeing matters from a different perspective and finding the best solution to the challenge.

Fast

District Heating projects require fast progress in terms of planning, design and installation. We work as a team in order to ensure quality solutions in due time.

Reliable

Our ultimate task is to provide the perfect solution every time. That is why openness, dialogue and presence are matters of course. It is our ambition to provide the industry's best service and always make an extra effort to exceed our customer's expectations.

9 Factories & Global Presence



Our nine factories are sited in Europe, Central and western Asia, close to our markets in strategic locations, guaranteeing maximum flexibility and reliable deliveries.

isoplus is represented in more than 30 countries. Our Danish office serves customers in the Nordic countries, the United Kingdom, Ireland, Estonia, USA and Canada. We have a dedicated members who are committed to develop district heating and district cooling systems, and to make a difference for the individual customer and the environment.

isoplus Facts

Company founded

1993



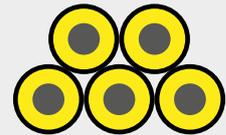
Factories Worldwide

9



Number of employees, the group

1,400



Production capacity, flexible pipes (meters/day)

12.000

Production capacity, steel pipes (meters/day)

10.000

Production capacity, fittings (units/day)

1.000

Global Facilities

- | | |
|----------------|------------|
| Denmark | Serbia |
| Austria | Hungary |
| United Kingdom | Kazakhstan |
| Germany | Kuwait |
| Italy | USA |
| Romania | Canada |
| Czech Republic | |

High Volume of Flexible Solutions ready for despatch

isoplus UK, located in Doncaster, holds a high volume of products for our flexible solutions products.

Within our warehouse at Head office in Doncaster, We hold large volumes of fittings, insulation sets and joints, all of which combine to produce our flexible pre-insulated pipe system. This also houses our electronic de-coiling machine. Outside, sit proudly, coils of **isopex** pre-insulated pipe, ready for despatch.

Sizes range from 25mm right up to 160mm are available in single pipe configuration, and 25mm - 75mm in twin pipe configuration.

Having such high-tech machinery in Doncaster is extremely advantageous; not only to **isoplus** but to our customers.

It enables us to have quick response times and meet customer expectations. Being next to a network of motorways also highlights our understanding of customer needs, and response times.

High Volume of Stock with Cutting & Coiling Facilities

High warehouse capacity holds a high volume of stock range of joints, joint assemblies, fittings and other accessories, all tailored to the pipes and easy to install and maintain. This ensures a high level of service to our customers, and gives us the opportunity to offer optimal and competitive solutions for both small and large assignments.

isoplus have the capability of cutting and coiling facilities, this allows us to supply our customers with the correct pipework for your project. This

allows us to be able to turn around orders from our depot to site quicker.

Low Temperature Heating or Domestic Hot Water pipe systems.

isoplus' isopex is available for district heating (6 or 10 bar operating pressure) and domestic pipe mains (max 10 bar operating pressure).

isopex pipes are bonded to the insulation that consists of of pex carrier pipe, flexible polyurethane insulation with oxygen diffusion barrier, and a LLDPE jacket pipe. Polyurethane insulation and LLDPE jacket pipe provide maximum flexibility, low installation costs and smooth installation without major requirements to the installer.

Contact **isoplus'** technical department and let us find the right solution for your project.





Easy as 1,2,3! Series of Insulation Pre-Insulated Pipes:

Flexible Network Systems

Flexible network systems are ideally suited to lower temperature district heating networks and for difficult installation situations.

The system is characterized by its simple operation.

The **isoplus** collection of flexible pre-insulated pipes and flexible pre-insulated pipe systems are perfect for projects with long runs of pipe, some pipe sizes can be coiled upto 360m in total - meaning less connections in the ground for peace of mind. Insulated with high-quality PUR foam and are perfectly protected thanks to our casing.

isoplus as a manufacturer have the flexibility to produce systems to suite your project, for instance we offer 3 stage insulation thicknesses - series 1, 2 or 3!



The isoplus group

The isoplus Group is one of the world's leading manufacturers of pre-insulated pipe systems.

The strategic European locations of our factories close to our markets ensure major flexibility and security of supply. The Scandinavian markets are primarily getting their supplies from our factories in Austria.

High-tech production methods which comply with current standards and innovative product development ensure high quality and low heat loss - optimal for business fluidity and good for the environment.



**Middelfart,
Denmark** 

**Hohenberg,
Austria** 

isoplus storage capacity

Our 43,000 m² large storage in Middelfart is one of the world's largest storages for pre-insulated pipes and associated components.

Flexible pipes are available as complete coils or in lengths cut to your specific demands. We stock a complete range of flexible pipes, pipe joints, and the required tools.

For our UK large scale projects we deliver directly to site from Middelfart. This allows our UK stock to be on hand for customers with smaller projects. Deliveries to the UK are made twice weekly to meet demands.



Design & product support as standard



Correct design ensures the most optimal and the most economical solution as well as savings on operation and maintenance in the long run.

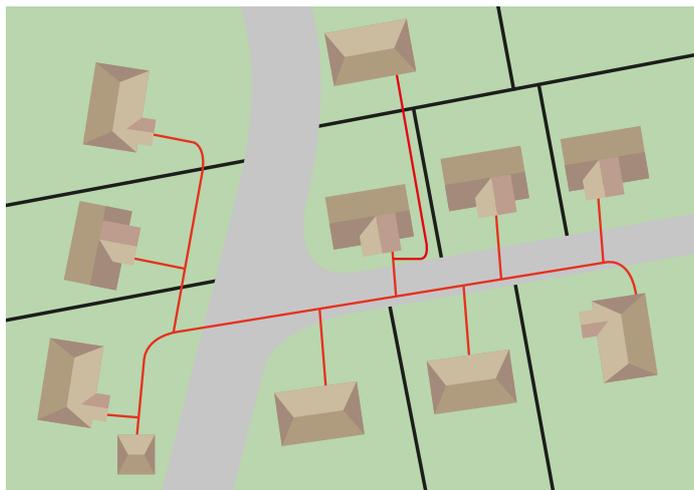
When designing district heating systems, many factors must be taken into account if the systems are to be economical and provide consumers with reliable energy supplies. Such systems should therefore ideally be dimensioned by consulting engineers using complex design software.

To ensure a reliable piping system with a long lifetime, a district heating project requires thorough planning as well as correct choice of products and installation method.

We believe that long-lasting and close relationships with our customers ensure the best solutions. The better our insight into the customers' business, the better can we adapt our products and services to their needs. Short lines of communication entail synergy. We see this particularly when it comes to the development of special products – such developments are the joint efforts of customer and **isoplus**.

isoplus' work is based on a principle of total quality. **isoplus** total quality means that we can offer you competent advice from project start until the pipe system is installed. We

know from experience that we ensure the best and most efficient solution, when we make extra effort to provide the best service and support.



This is what district heating looks like

District Heating being installed in Bristol





Flexible Pex Pipes



Thanks to their exceptional flexibility, **isoplus'** pre-insulated **isopex** pipes are perfectly suited for branch lines, secondary lines and lower temperature projects with a continuous operating temperature of maximum 85°C.

isoplus' pipe is a bonded structure that consists of pex carrier pipe, flexible polyurethane insulation and a LLDPE jacket pipe. Polyurethane insulation and LLDPE jacket pipe provide maximum flexibility, low installation costs and smooth installation without major requirements to the installer.

Thanks to their exceptional flexibility, **isoplus'** pre-insulated **isopex** pipes are perfectly suited to low temperature projects with a continuous operating temperature of maximum 85°C. with an option of 6 or 10 bar pressure rated pipes. Our ability to produce quality pre-insulated piping systems, means that we can achieve incredibly low heat losses at 0.024 W/m°C

Sizes range from 25mm right up to 160mm are available in single pipe configuration, and 25mm – 75mm in twin pipe configuration.



Fittings



- The **isoplus** 2-part brass Press-Fit fittings are possibly the most reliable connection within the flexible pipe sector of district heating.
- Connections are made by specialised tooling which open the end of the pipe. this allows the body of the fitting to be inserted in to the carrier pipe. The characteristic of Pex pipe then naturally 'shrinks' back to its original position. A collar is then hydraulically pulled over the pipe and fitting to create a safe and secure fixing, every time – in all weather conditions.

Joining Methods

isoplus offers a complete range of joints, joint assemblies, fittings and other accessories, all tailored to the pipes and easy to install and maintain.

isoplus joints and branches are developed to match the challenges occurring during the assembly of components in a piping system. We offer heat-shrinkable or clam casing, depending on installation conditions and project requirements.



isoplus insulation joints are easy and quick to install and are the market's preferred joining method.

Heat-shrinkable joints and branches of cross-linked polyethylene (PEX) allow simple and fast installation with less joints and components.

In the construction phase, we support our customers above all through:

- Participation in project meetings according to requirements or by arrangement
- Coordinated and short-term supply for optimum project handling
- On-site consultation and support from the **isoplus** team member assigned
- Short-term inspection and approval of changes with corresponding revision of the bill of quantities
- Short-term production of possible additionally required construction components and accessories.

Quality Assurance

Our QA systems cover all the company's processes, including production, planning, material and design. Product installation is also covered when performed by **isoplus**.

isoplus' quality engineers work to constantly ensure that everything goes according to plan. The **isoplus** group does not only adhere to the EN norms EN253, EN448, EN488, EN489, EN13941, EN14419, EN15632 and EN15698 – we gladly take it one step further to increase the safety level even further.

Before any raw materials are used, they receive production release approval on the basis of a comprehensive incoming goods inspection in accordance with EN 253. To ensure continuous quality assurance at the highest level, all production facilities are certified according to ISO 9001 and must be able to submit all required and necessary test certificates.

Repair Response Capability

Our team is capable of providing integrated inspection, repair and engineering support to solve customer issues rapidly.

On-Site Manufacturing

It's common knowledge in the business world that one should expect the unexpected. However, actually putting in the effort to address these unexpected circumstances is much more difficult than just acknowledging them.

isoplus is able to manufacture on-site special products to overcome any unforeseen obstacles.

Site attendance and operation

In the construction phase, we support our customers above all through:

- Participation in project meetings according to requirements or by arrangement
- Co-ordinated and short-term supply for optimum project handling
- On-site consultation and support from the **isoplus** team member assigned
- Short-term inspection and approval of changes with corresponding revision of the bill of quantities
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www.isoplus.co.uk

The 380° isoplus Solution

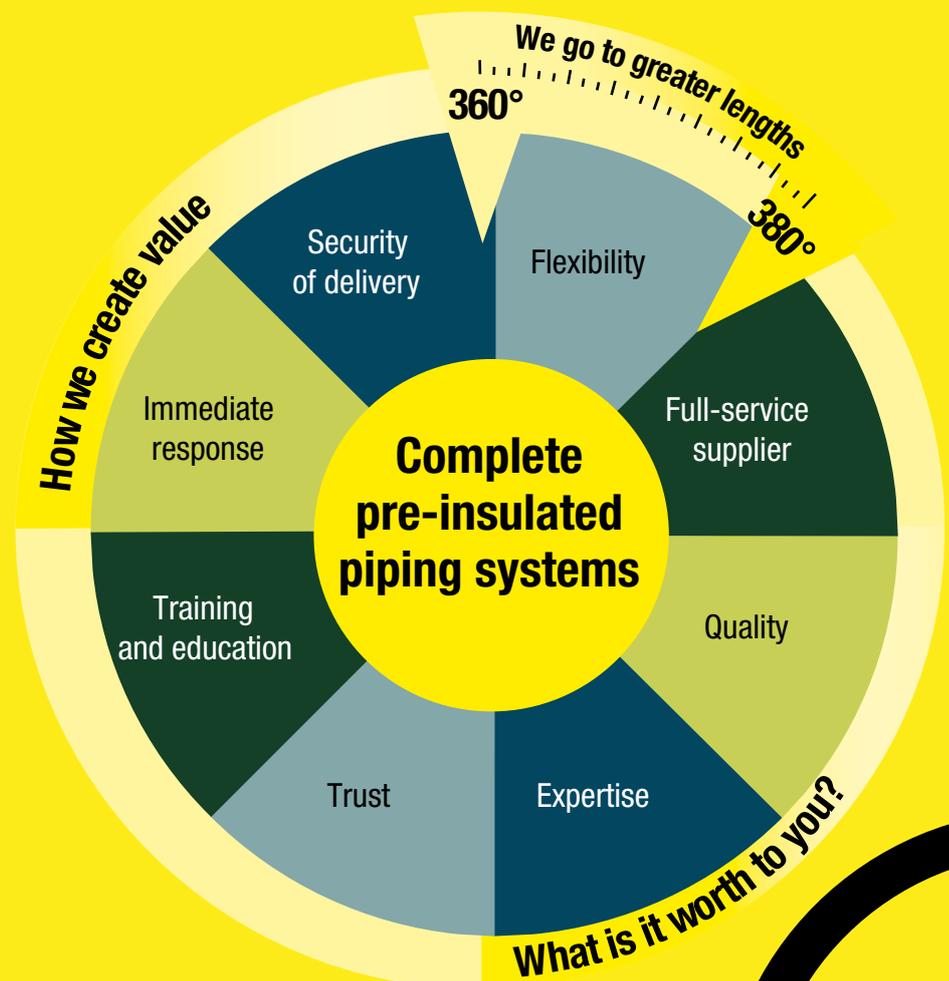
With **isoplus** you get a 380° service package - because 360° simply isn't enough!

At **isoplus** we work on the principle of total quality. This means that we offer qualified advice from the earliest project stages until the installation of the pipe system is complete. We are there to support your project every step of the way, and our team of experts are always just one phone call away should you need help optimizing your project.

Our many years of experience in the industry tell us that the best solutions are achieved, when an extra effort is put in. That is why a 360° service package simply does not cut it for us. We take it one step further with our 380° service package. The 380° service package guarantees a fast, flexible and reliable service with 100% technical backup creating the greatest possible value for our customers.

With **isoplus** by your side, you get pre-insulated piping systems, components and service of the highest quality, so that you are guaranteed an economically advantageous solution that can last for many years. We have the market's broadest product range, which means that we can certainly find the solution, that best matches your project. Moreover, with Northern Europe's largest stock of finished components, you are also guaranteed high reliability of delivery, both when it comes to planned and sudden needs.

In short; we are only satisfied when you are. With us as your pipe supplier, you have the industry's most experienced team with you from start to finish. To us, that is great value.



Pre-insulated Piping Systems Consultancy & Solutions

Our ultimate task is to provide the perfect solution every time. That is why openness, dialogue and presence are matters of course. It is our ambition to provide the industry's best service and always make an extra effort to exceed our customer's expectations.

Our pre-insulated piping systems are manufactured in accordance with current European norms and directives – and subject to constant quality control. We offer a complete pre-insulated piping system consisting of pipes and components that

are simple and fast to install, which ensures minimum impact on traffic, surroundings and environment.



District Heating



District Cooling



Community Heating



Industry



isoplus Installation Teams



Service & Support

At **isoplus** we believe that the best solutions are created in a close dialogue with customers.

To ensure a reliable piping system with a long lifetime, a district heating project requires thorough planning as well as correct choice of products and installation method. We believe that long-lasting and close relationships with our customers ensure the best solutions.



Planning

Efficient planning ensures optimal project implementation and reliable energy supply systems.



Feasibility Study

With a feasibility study you will get a full assessment of possible risks in connection to your considered project. A feasibility study will help you explore your project from a practical perspective before making the full commitment.



Design Calculations

Correct design ensures the most optimal and the most economical solution as well as savings on operation and maintenance in the long run.



Trenchless Technology

When open cut trenching is not a feasible option, trenchless technology could be a good option to facilitate the installation of your projects' pre-insulated pipes.



Certificates



WRAS Approved



DVGW Approved



Member of

UKDEA
DISTRICT ENERGY ASSOCIATION



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