

Cetetherm Pipe Sizing powered by Hysopt



We are proud to announce that we have partnered with Cetetherm to help them offer best-of-class service to their customers. As an HIU (heat interface unit) supplier, the customers of Cetetherm are often asking to assist in the pipe sizing of their project.

Using the Cetetherm Pipe Sizing, powered by Hysopt helps Cetetherm to provide more accurate calculations, compliant with the relevant industry standards. A detailed pipe sizing cuts oversizing and thereby contributes to more efficient heat networks.

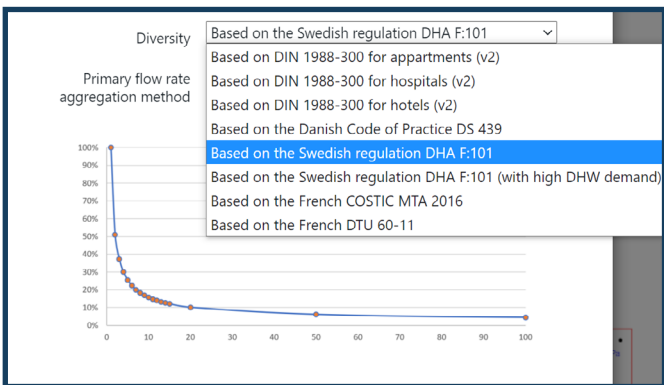
Features

SYSTEM CHECK

The physical calculation model ensures the software 'knows' what has been designed and can trace hydraulic concept faults and make them visible to the designer.

DIVERSITY FOR DOMESTIC HOT WATER

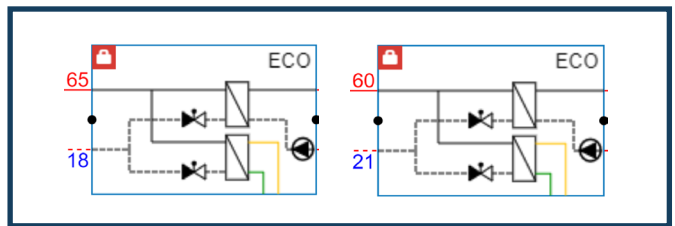
Hysopt supports diversity calculation based on the Danish DS439, the Swedish DHA F:101, the German DIN 1988-300 and the French COSTIC standard.



Diversity calculation in the Hysopt Software

HEAT EXCHANGER CALCULATION

The Cetetherm Pipe Sizing calculates the exact return temperature and resulting flow rate through heat exchangers for any given design condition, using the heat transfer coefficient of the heat exchanger. Cetetherm can use these detailed calculations to show the supremacy of their products.

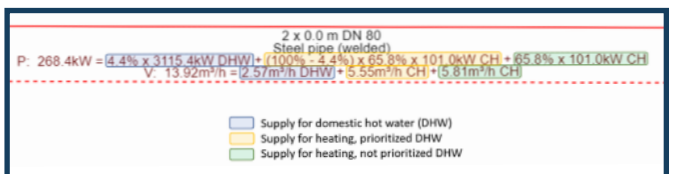


2 identical HIU's for different design conditions

ADVANCED AGGREGATION

To avoid oversizing of pipework, Hysopt will aggregate all the heat loads in the network correctly, based on the chosen diversity standards. In each pipe, the supply for domestic hot water, for heating prioritised by DHW (e.g. when HIU's are applied), and the supply for heating not prioritised by DHW are aggregated and weighted based on diversity factors.

As a result, overestimation of the heat loads and the flow rates are prevented. Both Cetetherm and Hysopt stress out the importance of calculating the return temperatures and flow rates.



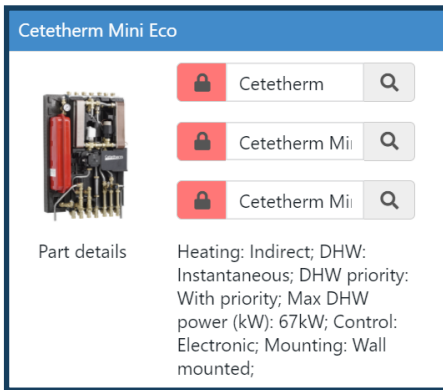
Flow rate calculation in the Hysopt software

What Cetetherm customers can expect

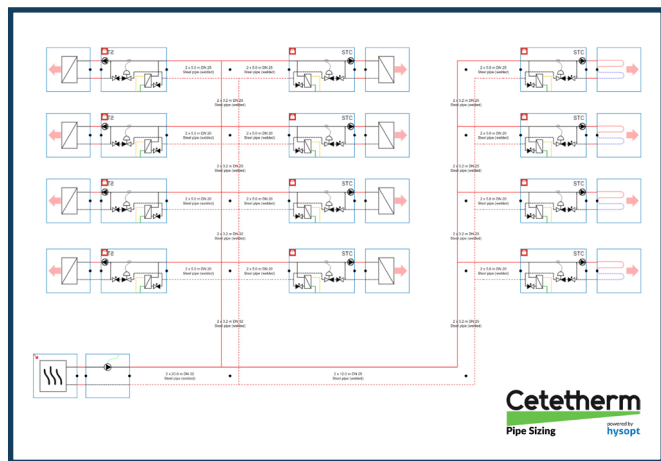
The Cetetherm Pipe Sizing can deliver the following outputs:

- P&ID schematic (risers and laterals), detailing:
 - Peak loads
 - Temperature regimes
 - Flow rates
 - Pipe sizes and lengths
- Export of component list with:
 - Pipe schedule
 - HIU schedule

This is a great kick-start for developing an efficient heat network.



Product implementation in the Hysopt software



Schematic from Cetetherm Pipe Sizing, powered by Hysopt

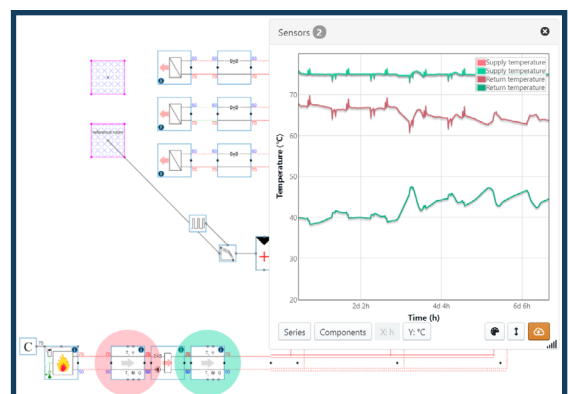
Product Marketing Cooperation

Hysopt product marketing cooperation (PMC) involves the integration of manufacturer specific components into the Hysopt software. Integration of manufacturer specific components allows any Hysopt user to design and simulate systems using the correct physical parameters of the manufacturers components.

HVAC digital twin software

The “Cetetherm Pipe Sizing, powered by Hysopt” is developed as a light-weight version of the Hysopt software. The Hysopt software is a design and simulation software which builds a digital twin of an existing or future installation. Unlike outdated and static design methods, the Hysopt software designs with the greatest precision. All components in the heating installation are automatically sized and the values are being calculated.

With dynamic simulation, the Hysopt software can predict the dynamic behaviour of this installation such that the performance of a system becomes predictable and measurable, even before it is being installed. This allows the designer of heating and cooling installations to optimise designs for their client.



Dynamic simulation of a heating installation

About Cetetherm

THE COMPANY

Cetetherm, part of the Nibe Group, offers high-tech product expertise in heating and cooling systems for the district energy and collective boiler room markets. The Cetetherm brand has been recognized for over 60 years. Originally from Sweden, the business expanded over the years into many international markets. Today we bring on innovative product and application expertise to our customers who are looking for energy efficiency and sustainable climate solutions.

THE PRODUCT

Cetetherm offers a complete range Heat Interface Units (HIU). Fully insulated, low return temperatures, smart controls, built to last, space saving design and ready to install/use.

Besides HIU's, Cetetherm also offers district heating and cooling substations, tap water systems and storage tanks, tubular heat exchangers and hydraulic expansion systems. The common denominator for most ranges is "Low Return Temperature" for optimum energy efficiency.



Cetetherm HIU

THE TEAM

An international team showing passion for hydraulics combined with digitalization. We mainly focus on energy efficiency, connectivity, low temperature systems and sustainability. We believe in strong partnerships providing high quality products at competitive prices and easy on-line tools to do business together. Cetetherm, always one step ahead.



Johan De Cuyper

General Manager
johan.de.cuyper@cetetherm.com

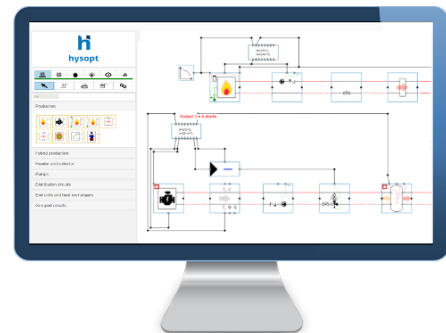
About Hysopt

THE COMPANY

Hysopt is a spin-off from the University of Antwerp. Over the last 6 years, our involvement in 200 large-scale heating and cooling projects has resulted in an average saving of 30% with a payback of less than 3 years.

THE PRODUCT

Hysopt is the new standard for the design and optimisation of heating and cooling installations. It puts an end to unnecessary oversizing, numerous hydraulic errors, dubious rules of thumb, copy/paste of outdated system concepts and other questionable methods that lead to insufficient comfort levels, high energy costs and carbon emissions.



P&ID of CHP installation in the Hysopt software

THE TEAM

Empowered by the 2020 CIBSE Building Performances Award, we are driven to improve the performance of heat networks.

Besides the design and simulation software, there is useful HVAC and district heating experience within the Hysopt team. This experience can be very helpful for you through supporting engineering services.



Ruben Vos

Heat Network Specialist
ruben@hysopt.com