

# LOGSTOR *Calculator*



**Benchmarking energy loss and CO<sub>2</sub> emissions  
for pre-insulated pipe systems  
– [www.logstor.com/calculator](http://www.logstor.com/calculator)**

● distributing energy efficiency

**LOGSTOR**

# LOGSTOR Calculator

## – clear figures about energy efficiency and environmental impacts

- Web-based tool that's easy to use
- Provides an easy-to-grasp overview of the facts and figures
- Accurate, reliable calculations of energy loss
- Automatically converts energy loss to figures for CO<sub>2</sub> emissions
- Calculations shown in numerical form and easy-to-read graphs
- Comparative calculations for different types of pipe
- Comparative calculations for different projects
- Based on the very latest know-how about the aging of PUR insulation foam
- Aging processes in PUR insulation foam shown in graph form

**LOGSTOR Calculator is a web-based calculation and visualisation program that we have developed to help our customers make well-informed decisions about energy-effective and environmentally responsible pre-insulated pipe systems.**

The LOGSTOR Calculator is the most accurate and reliable way to calculate energy losses in pre-insulated pipe systems used for district heating. The capabilities of this web-based software are based on a comprehensive body of mathematical and physical calculation models. Nevertheless, we've made sure LOGSTOR Calculator is easy and straightforward to use, focusing on users' needs for easy, rapid access to reliable information – presented in a way that's always easy to grasp.

Not only does LOGSTOR Calculator give you the exact figures for the energy losses – it also works out what this will mean in terms of actual energy expenditure and in terms of CO<sub>2</sub> emissions.

All the calculations are clearly shown in numerical form, accompanied by easy-to-read graphs.

You only have to type in the basic parameters for any given project – the type of pipe, the flow and return temperatures, the type of energy used and its current price, expected service life, etc. You can then see for yourself the calculated results and comparisons that help you make clear, well-informed decisions about which pre-insulated pipe systems would give the best results for your project.

LOGSTOR Calculator also displays the aging curves of the PUR insulation of the various types of LOGSTOR pipe. Marking the relevant dimensions provides you with an easy-to-grasp overview of their aging process, and also of the average lambda values over a period of 30 years.

The LOGSTOR Calculator is at [www.logstor.com/calculator](http://www.logstor.com/calculator) – ready to use.

### Documentation for the aging of PUR insulation foam

The example shown here is for conventionally manufactured LOGSTOR pre-insulated pipes with no diffusion barrier, in which the PUR insulation foam deteriorates in step with the service life of the pipe. This results in gradual increases in energy loss.

### Compare different types of pipe

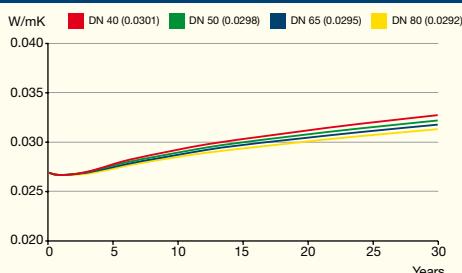
You can compare the levels of energy loss from LOGSTOR pipe laid in pairs and as twin pipes, with different insulation thicknesses (Series 1, 2 and 3), conventionally manufactured and continually manufactured, etc.

All comparisons are relative in terms of energy loss, and the savings you can make are shown in both W and %.

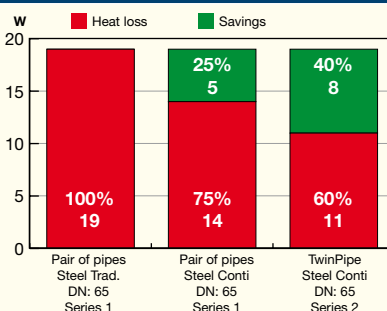
### Compare different types of service pipe

You can also compare the relative efficiencies of the same kinds of pre-insulated pipe with different types of service pipe inside. For example, LOGSTOR FlexPipe is available with service pipes made of steel, Alu/PEX, PEX and copper.

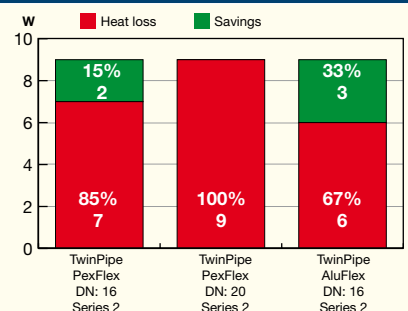
#### Aging of PUR foam



#### Compare heat loss



#### Compare heat loss





### Compare different types of project

In addition to enabling you to accurately quantify energy losses for each specific length of pipe, LOGSTOR Calculator enables you to make comparisons between energy losses you can expect from complete projects, seen in terms of both operating costs and CO<sub>2</sub> emissions. This gives you the figures needed for selecting the pre-insulated pipe system that provides the most energy-efficient infrastructure.

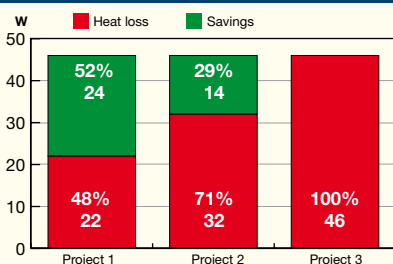
### Compare the financials

LOGSTOR Calculator calculates and compares the financial impacts of energy losses over a defined period in present value. This gives you a clear overview of how different levels of energy losses affect the operating costs for a particular project, and what the service life costs will amount to.

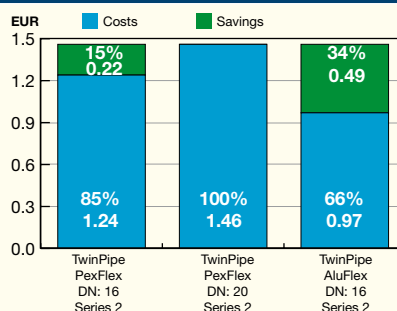
### Compare the CO<sub>2</sub> emissions

Once the expected energy losses have been worked out for using a particular type of pipe or in a particular project, LOGSTOR Calculator can automatically provide you with an overview of the annual levels of CO<sub>2</sub> emissions that correspond to these energy losses.

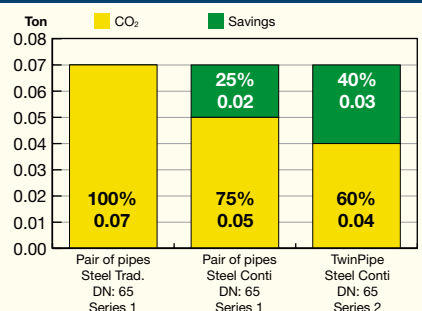
#### Compare heat loss



#### Compare finances



#### Compare CO<sub>2</sub> emission



● distributing energy efficiency

LOGSTOR A/S  
Danmarksvej 11 · DK-9670 Løgstør  
Tel. +45 9966 1000 · Fax +45 9966 1180  
logstor@logstor.com · [www.logstor.com](http://www.logstor.com)

**LOGSTOR**