



**"Using high pressure water to improve paper drying"**

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## DS Smith Paper, Lucca mill

DS Smith is a leading provider of corrugated & plastics packaging, supported by paper & recycling operations.

- 25.400 employees
- Operations in 34 countries over the world
- Our capabilities
  - Packaging
  - Recycling
  - Paper
  - Plastics
- Founded in 1940 by the Smith brothers in London
- Listed on the London Stock Exchange



### Savings

Around 20.000 MWh/year

**Energy reduction**  
 Around 4%

**Year of Realisation**  
 2011

Lucca paper mill is situated in Tuscany and it is an Italian market leader in containerboard production, based on 100% recovered paper.

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### Initial situation

In the paper industry, the process of pulp drying is the most energy intensive. The pulp dryer section is composed of a set of dryer cylinders grouped in subsequent sections called "batteries". For each "battery" there is an upper and lower felt, which wrap the respective cylinders and the sheet of paper.

The higher permeability, more heat will be transferred. The water deposit, indeed, is able to block the voids on the felts, preventing the steaming of water.

### Measures

A washing system with high pressure (200-350 bar) water has been used, which allows a continuous cleaning of the felts, without idle time, ensuring the highest level of permeability and hence the heat

transfer from drying cylinders to the paper sheets.

The intervention, thanks to the high efficiency of felt cleaning (without chemical compounds), has allowed the reduction of steam consumption of the drying cylinders.

