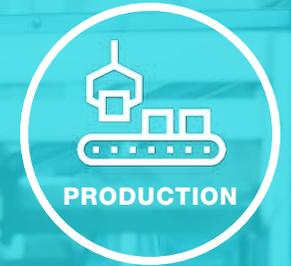


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 **EcoCooling**
FRESH AIR COOLING

About Thermoform

Thermoform is a long established family owned UK business that designs, develops and manufactures bespoke vacuum-formed plastic packaging for some of the country's best known and most demanding companies.

Founded in 1973, the company's design, development and tool making is carried out in-house at its specialist facility in Ashbourne, Derbyshire.

The challenge

Thermoform Ltd had an existing evaporative cooling system on-site that it was looking to replace.

Home to a bank of fully automatic machines that form, cut and stack a wide range of plastics, the need for an effective system that could moderate the temperature, especially during the increasingly warm summer months, was essential for both employees and the equipment.

The requirement was for a ventilation-based fresh air cooling system, which could provide effective cooling in summer months whilst being economical and environmentally friendly to run.

Having experience with industrial evaporative cooling, Thermoform understood the technology and its suitability for their factory and machinery. Therefore, their choice was between the various models available from different manufacturers.

Knowing this, they wanted to analyse a number of different systems from both their existing supplier and alternatives to ensure their new system was as effective and cost efficient as possible.

The solution

Thermoform approached an EcoCooling approved installer to provide a cost for supply and installation of EcoCoolers. Working with Thermoform to understand their requirements, the installer designed the most effective and economical solution for their site.

The proposed solution was for three wall-mounted, down discharge EcoCoolers that would provide 24,000m³/h of cooling, which would be ample for the factory floor.

Fitted with an inbuilt supply fan that drives external fresh air into the building, the EcoCooling units would provide Thermoform with an effective ventilation system all year round. Then, on the hottest days, when evaporative cooling is required, the pads in the units would be wetted to bring down the temperature of the incoming air and in turn provide a stream of cool air to the factory floor.

Externally fitted, down discharge units were chosen for the factory as they are simple to install and provide maximum cooling for the lowest cost.

To further help Thermoform, the coolers were installed on the side of the building rather than the roof to avoid any roof maintenance work.

Four-way plenums were fitted as part of the design to allow cold air to be directed to the areas that needed it most.

The use of spot cooling, coupled with a 35% increase in fresh air, as provided by the EcoCooling units compared to the equivalent old system, promised Thermoform higher operational effectiveness.



The result

Thermoform has been impressed with its new cooling solution from the ease of installation to the effectiveness of the EcoCoolers. The team is looking forward to getting use from what is a more efficient and economic system that will meet the cooling requirements of the shop floor no matter the outside temperature.

Business benefits



A more reliable and effective evaporative cooling system



Improved working conditions for employees especially during hot weather



A specifically designed system that is cost-effective to run

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Just wanted you to thank the lads for their efforts over the last week in very difficult weather conditions. Nothing was too much trouble and they worked around our production requirements. We are excited about the new installation and know this will benefit us greatly, especially in the summer months.

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Denis Fitzgerald
General Site Manager, Thermoform