

Better air for LAUFEN

MANUFACTURER OF BATHROOMS • CERAMICS •
PRODUCTION HALLS



LAUFEN s.r.o. is an important producer of sanitary ceramics with a large proportion of handwork.

The company, also known under the JIKA brand, was bought by Roca and has a significant market share. While improving the working environment and thermal comfort in their operation, we focused on optimizing production in the area of white retouching, where ceramic semi-finished products are sanded by hand.

LAUFEN installation in 2019



Location: Operation Znojmo

In the Znojmo facility, where the final treatment of ceramic products takes place, we faced several challenges associated with a multi-storey building and specific requirements for air quality and thermal comfort.



LAUFEN installation in 2019

What did it look like there?

The building was energetically inadequate and its old construction limited the possibilities of installing traditional solutions. A specific requirement was the necessity of installation through the wall and window due to the multi-storey building. The low ride height also complicated the installation, so we had to make an atypical square duct instead of the usual round one, so that the air flows as close as possible to the workers without blowing directly on their backs.

Goal:

The goal of the project was to improve the quality of the working environment and thermal comfort. The installed technology was supposed to ensure air cooling and humidification while maintaining the specific requirements for air flow in the white retouch spaces.



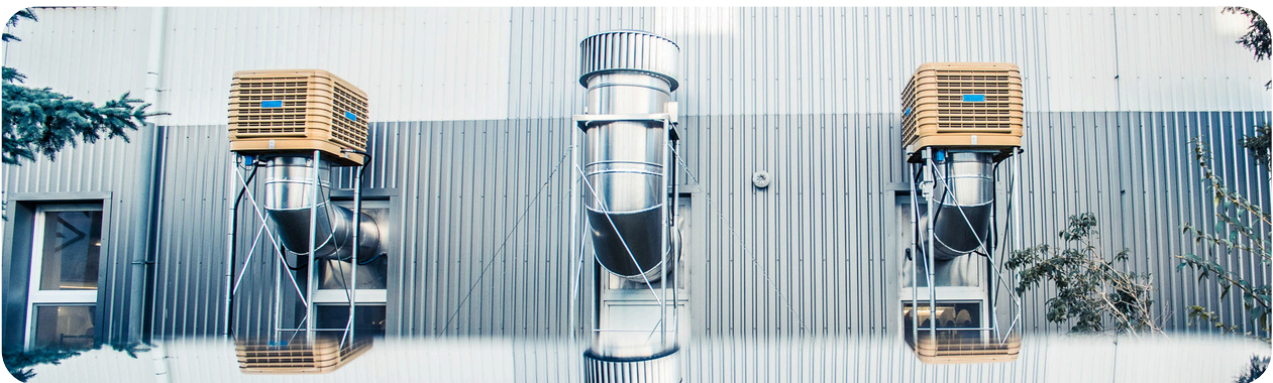
LAUFEN installation in 2019

Project specifics:

- Building statics: Impossibility of installation in the roof.
- Construction: The multi-story building required mounting through the wall and window.
- Passage height: Necessity of manufacturing an atypical square pipe.
- Air flow requirements: Specific requirement not to blow air directly on workers' backs, but at knee and calf level.

Used technology:

- 2 pcs of adiabatic coolers: For air cooling.
- 1 pc heat extractor: To reduce the heat load.
- Custom made lightweight steel structures for side mounting.

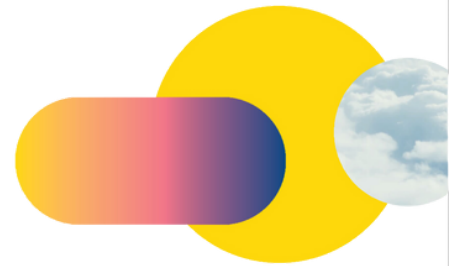


Result:

By installing our solution, we achieved a significant improvement in working environment conditions and thermal comfort, while the maximum electricity consumption was reduced to 3.5 kW. Workers in the field of white retouch now work in optimal conditions, without disturbing the air flow, which has led to an increase in their satisfaction and work efficiency.

LAUFEN s.r.o. thus he obtained not only a technologically advanced solution, but also an improvement of the working environment, which is crucial for maintaining the high quality of hand-made products.

Used technology:



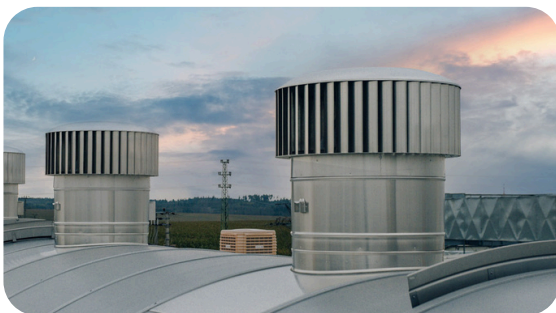
HVLS destratifier

- It will improve the transport of cooled air,
- lowers the feeling temperature by 4 °C,
- will reduce cooling costs by up to 20%,
- disrupts temperature layers (at 2 meters = + 2°C),
- equalizes the temperature between the ceiling and the floor at 2-3 °C,
- saves up to 40% on heating.



Adiabatic coolers

- Reduces the temperature up to 28°C,
- reduces electricity consumption energy up to 80%,
- cools only with water,
- supplies 100% fresh air,
- 7x more efficient than air conditioning.



Heat extractor

- It reduces the concentration of pathogens microorganisms,
- reduces the temperature load by up to 5 °C,
- removes moisture, VOCs, CO2, etc.,
- reduces ventilation costs by up to 99%.