



Case study

From manufacturing with a smoky haze to air quality of clean room class ISO 8



Customer

FOLIEN
FISCHER AG



Location

Dottikon (CH)



Sector

Plastic industry



Dust reduction

Up to 80 %

At a glance

“We are very satisfied with the implementation by the Clean Air Solutions team. Even though I was sceptical at first, today I am glad that I agreed to the project. We have reached our common goal and today we manufacture under clean room class ISO 8 conditions. Normally such a hall conversion requires seven-digit expenditures. With the air purifiers by Zehnder we spent much less than that. Thank you!”

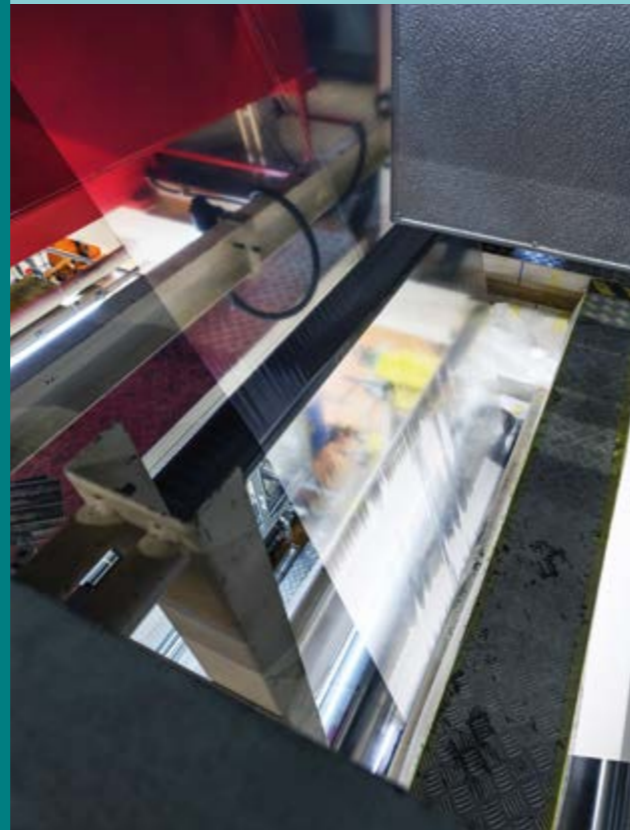
Dr. Fridolin Fischer, Managing Director

Challenges

While FOLIEN FISCHER AG manufactures their special innovative product range, the processes led to a persistent and worrying problem; a smoky haze developed in the manufacturing halls. The existing ventilation system was unable to handle this and the result was not only a visible cloud of haze but also led to general air quality concerns on the part of Dr. Fridolin Fischer.

Benefits

The result of installation of Zehnder air purifiers is quite remarkable: The air in the halls did not simply become clean. The solution is so successful that Folién Fischer AG today manufactures under an air quality of clean room class ISO 8.



About FOLIEN FISCHER AG in Dottikon

“Rooted in the heart of Europe - acting worldwide!” is the motto of FISCHER FOLIEN AG. It is no coincidence that the manufacturer of high-quality films markets its products so successfully across five continents. The family-owned company was established in 1899 already and has become internationally well-known.

Starting out as a lithographic printer, FISCHER has evolved into one of the world's leading manufacturer of films, papers and fabrics. Whether coated, printed, separating or adhesive film – with its extensive product range, the company is able to fulfil practically all

customer wishes. There is no sector that does not benefit from this wide range of expertise: From print finishing via food and non-food packaging up to medical applications and the construction sector, every industry is involved



Protecting employees and strengthening the competitive stand

For FOLIEN FISCHER AG, quality and competitiveness are top priorities. **Healthy and satisfied employees are essential to ensuring the future growth and prosperity of the business.** For this reason, managing director Dr. Fridolin Fischer has early on sought to find a suitable solution for protecting his staff.

However, the usual air handling systems did not deliver the desired results. The conversion of the manufacturing halls with the aim of fulfilling a clean room standard would not only have costs millions of Swiss Francs, but also considerably impair the manufacturing process.

The recommendation of a former employee and fulfilment of the clean room class in a special way

Dr. Fridolin Fischer had almost given up hope of achieving manufacturing halls with clean air quality when a new employee crossed his path. The new colleague told him that he had worked for Zehnder Clean Air Solutions for a long time. Their air purification systems would be ideally suited for his plans of reducing the particle load in the company's manufacturing halls to a minimum. The costs would be a fraction of what would have been required for a complete conversion of the halls.

Initially rather sceptical, Dr. Fischer decided to give the approach a try and contacted Zehnder Clean Air Solutions.

Zehnder Clean Air Solutions exceeds all expectations

Following an initial consulting meeting and an on-site analysis of the manufacturing halls, the Zehnder representative put together an air purification system that would change the halls of FOLIEN FISCHER AG into a clean room. The aims:

- Greatly reduce coarse particulate matter and fewer deposits on half-finished and finished products
- Create generally healthy breathable air for all employees in the manufacturing halls
- Optimise processes and improve product quality
- Reduce general cleaning costs
- Clean systems, less system downtimes, less soiling of control units and electronics
- General cleanliness in the warehouse and the manufacturing area for an all-round positive image as an employer and supplier

And the result? Zehnder Clean Air Solutions not only fulfilled these aims, but even exceeded them.





Clean room class ISO 8, or: 80 % less dust since 2021

Shortly after installation of the air purification systems, Zehnder conducted another measurement of the air quality; the result left Dr. Fischer speechless; this was because not only was the visible smoky haze eliminated and the breathable air notably better:

The measured values in the halls were so good that the air quality in the manufacturing halls now even complied with the clean air class ISO 8 (DIN EN ISO 14644-1). All this without having to spend millions of Swiss Francs.

A result that is not only visibly evident and allows colleague to breathe easy but also helps the bottom line

To have a written record of the excellent outcome, Zehnder presented Dr. Fischer with a certificate at the conclusion of the project that confirms the exceptionally high air quality. It is also evidence of the fact that as a company one can initiate daring and innovative projects despite initial doubts with outstanding results.