



Case study

# Industrial air cleaning for a working environment with the wow factor



**Customer**

Ruetschi  
Technology AG



**Location**

Muntelier (CH)



**Sector**

Medical  
technology



**Dust reduction**

90 %

# At a glance

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*“After we installed the air cleaning devices from Zehnder Clean Air Solutions, the air quality was unrecognisable and we got amazing feedback from our staff. We were totally wowed!”*

Thomas Trüssel, Head of Production

## Challenges

Ruetschi Technology AG is one of Switzerland's leading manufacturers of premium implants and medical instruments, a sector that upholds rigorous quality standards and is subject to strict legal requirements. The biggest challenge that Ruetschi was facing came in the form of oil particles that were being deposited on tools, machines, work benches and so on in certain production areas. This was creating a visible oil mist in these areas and leaving a film of oil on the equipment, which then had to be removed manually – adding an extra task that was very different from the specialist work being performed and was undermining morale among the highly skilled workforce. The high concentration of particles was also having a negative impact on process efficiency.

## About Ruetschi Technology AG

One of Switzerland's leading manufacturers of premium implants and medical instruments, Ruetschi Technology AG uses industrial air cleaning systems from Zehnder Clean Air Solutions to create outstanding working conditions, keep its processes running cleanly and with maximum efficiency, and put the company in the best possible position to face the future.

## Benefits

The air cleaning devices from Zehnder Clean Air Solutions have completely removed the oil mist. There is no longer any need to remove the film of oil manually, leaving employees free to focus on their core skills. The air has also been made significantly cleaner – another benefit for the workforce.

Not only this, but the air cleaning devices provide effective protection for the company's investments by preventing the high-tech machinery and systems being compromised by oil particles. The flawlessly clean environment means that Ruetschi Technology is in a strong position to accommodate the increasingly strict requirements being imposed by regulatory authorities – making it extremely well equipped for the future.





An unwelcome side-effect of the particles was that **the film of oil had to be removed manually – adding an extra task that was very different from the specialist work being performed and was undermining morale among the highly skilled workforce.**

Another important factor is that optimised, efficient and clean processes are a must for any company that wants to remain competitive on the dynamic medical technology market – and an excessively high particle concentration could stand in the way of this.

## Premium medical technology

Ruetschi Technology AG is a full-service provider of medical technology and focuses on sterile implants plus medical instruments in sterile packaging. This sector values premium standards and exceptional precision – both qualities that are embedded in the company's DNA. Ruetschi started out in production for the watch industry, but gradually shifted its focus to medical technology in response to market demand. Today, it employs more than 200 people and does work for medical technology companies around the world, achieving double-digit growth figures. Its recipe for success lies in its ability to provide a full range of services for medical devices – from the initial concept through to development, prototyping, production and distribution.

## Initial situation: A foggy outlook

The production conditions at Ruetschi Technology already met extremely high standards, but market demands and legal requirements are growing all the time in the medical technology industry. For this reason, co-CEO Christoph Ruetschi subjects the company's production processes to ongoing scrutiny.

In this case, what was troubling him were the oil particles that were spreading through the air and being deposited on tools, machines, work benches and so on in certain production areas. Even extraction equipment and ventilation systems were not enough to get rid of the oil mist being created.

## In search of a clean solution

All this provided a number of excellent reasons for Thomas Trüssel, Head of Production, to embark on a search for a solution. As he explains, there were clear criteria in mind: “We don't want to just reduce the film of oil – we want to see it virtually eliminated. Most providers of solutions in this area said no, however: the only one that didn't baulk at the task was Zehnder, which is an expert in the field”. The company presented Ruetschi Technology with its high-tech air cleaning systems from the Zehnder Clean Air Solutions line, which includes devices that are effective at filtering oil and other particles out of the air **thanks to their innovative, highly efficient Flimmer filter technology.**

The devices made a convincing case. Zehnder then measured the concentration of particles in the critical areas and used these measurements





to put together a bespoke full-service package for the medical technology company. The project got the green light.

## The wow factor: Particles reduced by over 90%

The devices were first tested in practice in a small room used for regrinding tools and producing cutting patterns. The small dimensions of the space were making it very difficult to control the concentration of oil particles accumulating there. Zehnder installed an air cleaning device and the first measurements taken after commissioning showed a significant reduction in the particle concentration.

This provided the evidence that was needed to expand further. Zehnder devices were then also installed in the 220 m<sup>2</sup> bar lathe shop – with resoundingly successful results. Thomas Trüssel explains: “After we installed the devices, the air quality was unrecognisable and we got amazing feedback from our staff. We were totally wowed!” Going into more detail, he adds: **“We can now set tools down without the worry that they’re going to become covered in oil residue. The oil mist that was so visible before has now disappeared. And we don’t need to remove oil from working surfaces any more.”** This means that employees are now free to focus on their core skills and enjoy a working environment that is much cleaner – making it much healthier too.

Last but not least, the Zehnder air cleaning devices provide effective protection for the company’s investments by preventing the high-tech machinery and systems being compromised by excessive quantities of oil particles. These



outcomes are backed up by the measurements taken before and after installation, which show a reduction of **over 90%** in the concentration of particles in the bar lathe shop.

## A clear outlook on a clean future

Thomas Trüssel goes on to say: “We were also really impressed by Zehnder’s teamwork, service and short response times. Not only that, but it’s worth noting that Zehnder created a full package that was tailor-made for our specific needs.”

With its innovative air cleaning systems, Ruetschi Technology is now in the best possible position to face the future. Complying with the growing list of specifications from regulatory authorities such as the FDA requires a proactive approach – but as far as clean air is concerned, this Swiss medical technology company can relax in the knowledge that its Zehnder devices are helping it achieve this. To summarise in the words of Christoph Ruetschi and Thomas Trüssel: **“Would we recommend Zehnder? Absolutely!”**