



## Case Study

# Clean air in metalworking shops: goodbye fog and dust



**Customer**

iSi GmbH



**Location**

Wien (AT)



**Sector**

Metal processing



**Dust reduction**

83 %

## At a glance

“Every employee should go home as healthy as when they came to work. The implementation of air purification systems from Zehnder Clean Air Solutions has provided significant improvements for the health of our employees and the quality of our products.”

Thomas Zeleny, Head of Operations

### Challenges

iSi was faced with a challenge that's common in the industry, but nevertheless a major one. Cooling lubricant that vaporised during the production of the cream charger and gas pressure cylinders and thereby produced dense aerosol mists. Depending on the time of year and time of day, these were even visible to the naked eye.

Thomas Zeleny, Head of Operations at iSi, recognised this problem immediately during an internal audit. Despite the fact that the effects were well within the legal framework, it was clear to iSi that there was a need for action.

### About iSi

With over 4,000 employees worldwide, the iSi Group is the global market leader in the manufacture of pressurised gas cylinders. With around 240 employees in Vienna, iSi's products are indispensable in the catering sector and reflect a combination of tradition and state-of-the-art technology.

### Benefits

To the delight of the employees, the air purifiers from Zehnder Clean Air Solutions led to an overall reduction in fine dust pollution of no less than 83 %. This improvement in air quality not only benefits them but also contributes to more efficient production, thus strengthening iSi's leading position in the industry. By installing the air purification systems, the company has demonstrated its commitment to innovation and sustainability.



## No mist, no dust: clean air in the metal industry

iSi GmbH is one of the leading manufacturers of cream chargers and pressurised gas cylinders. As a company in this position, it has correspondingly high demands for the quality it provides. However, iSi was faced with a challenge due to its increasing growth: **during metalworking production, vaporised cooling lubricant led to the formation of aerosol mist. In some cases, the amount was so high that the mist could even be seen with the naked eye.**

Importantly, iSi complied with the legal framework at all times and the required guidelines were never exceeded. Regardless, the company didn't take the potential consequences lightly. This is because iSi attaches great importance to quality and health standards. As such, their motto is to act before potential threats arise. After all, cream charger capsules and the like should be as clean when they are processed as they would ideally be in a fridge.

### A serendipitous solution

As fate would have it, Zehnder Clean Air Solutions contacted iSi just as the company was beginning to look for a suitable solution. So, a happy coincidence laid the foundation for a successful collaboration and ultimately led to the air in the hall being circulated and cleaned more than four times an hour with air purifiers from Zehnder Clean Air Solutions.

### Commissioning: good coordination meets maximum precision

Commissioning the air purifiers in the over 900m<sup>2</sup> large and 7m high hall was logistically challenging due to very busy, ongoing operations. But despite the difficulties, thanks to the excellent cooperation with Mr Zeleny's team, the implementation was successful. The air purifiers with side intake now adorn the walls of the hall, which is an optimal adaptation to the spatial conditions.

### No space? No problem!

In addition to the hustle and bustle in the hall, the impressive indoor crane, which takes up a lot of space in the drilling shop at iSi, also made



installation difficult. But good co-operation makes just about anything possible: thanks to effective communication and support from iSi, the experts at Zehnder were able to find an ideal air purification system in the end.

**Within the Zehnder Clean Air Solutions portfolio, this project shows once again how even complex challenges can be successfully mastered through careful planning and co-operation.**

### Air purifiers with visible advantages

- **Significant reduction in particulate matter pollution** – a full 83 % less particulate matter led to a noticeable improvement in air quality. That is 83 % fewer particles that can potentially be inhaled or have to be removed by cleaning staff at a later date.



- **Focus on employee health** – Zehnder’s air purification systems created a healthier working environment, ensuring that the iSi team continues to enjoy coming to work.
- **Increase in production efficiency** – better air quality improved the market leader’s product quality even further.
- **Better air, even better image** – iSi is a popular potential employer globally, but especially in the “happiest city in the world“, Vienna. By taking protective measures for its own staff, the company has further increased its attractiveness as an employer.

## iSi and Zehnder Clean Air Solutions – 83 % less dust, 100 % success

“Our collaboration with Zehnder Clean Air Solutions was a real highlight. We were impressed with how seamless and dedicated everything was. **It’s this kind of proactive and solution-orientated partnership that we particularly value at iSi and that has helped us to significantly improve our working environment,**“ says Thomas Zeleny.

And he promptly followed up his words with further action; an additional hall is to be equipped with Zehnder Clean Air Solutions’ air purifiers in the near future.