



Case study

A happy, healthy workforce for the market leader



Customer

Wila



Location

Lochem (NL)



Sector

Sheet metal working



Dust reduction

Up to 75 %

At a glance

“We completely trusted Zehnder Clean Air Solutions even before our air purifiers were installed. We had noticed their air cleaning systems at one of our suppliers in Germany, who was very pleased with the results. It’s exactly the same for us: the numbers are very impressive.”

Maarten Broersma, QSHE Manager

Challenges

Employee welfare is very important to Wila, so the company was always on the look-out for ways to improve the health of its workers. One area it was particularly keen to address was air quality. Staff were reporting health problems as a result of metal dust in some areas, and breathing in unpleasant, potentially harmful vapour where the milling took place.

About Wila

Wila is the world’s largest manufacturer of press brake and clamping tools for the sheet metal processing industry.

Benefits

There were impressive air quality readings following the installation of Zehnder’s air purifiers: up to an 84 % reduction in harmful vapour and air pollution. The staff noticed a significant improvement in air quality, too, as did suppliers when they visited the site.

Health complaints as a result of dust and vapour have also significantly reduced, leading to a greater sense of job satisfaction among Wila’s workers. It’s the basis for more motivation and ultimately productivity – an excellent recipe for maintaining market leadership.



From a working environment with fumes from coolants and dust from CNC milling machines, to a healthier one with clean air. Having Zehnder Clean Air Solutions in the factory means a marked improvement for the dutch company Wila.

Staff health is always on the agenda for Wila, the world’s largest manufacturer of press brake tools and clamping tools for the sheet metal working industry. At the Lochem factory, approximately 250 people work in five shifts, 24 hours a day to produce high-quality press brake tools. During each shift there are between ten and ninety people in the factory.

“Staff health is very important to us. That is why we are continuously working on improving the working environment and we are always looking for new solutions” says Maarten Broersma, QSHE Manager responsible for quality, safety, health and environment at Wila.

Coolants spread fumes

The production of a press brake tool starts with high-precision milling of the metal parts for the tool using a digitally-controlled CNC milling cutter. During this process, heat is created due to the friction between the cutting tools and metal being milled. To remove the heat that is generated, coolant is sprayed at high pressure on the milling tools and the metal. The coolant also increases the service life of the milling tool.

“The problem is that **the coolant generates powerful fumes that lower the air quality** in the factory. These fumes are not toxic but they are

unhealthy and not pleasant to breathe in”, says Maarten Broersma.

Milling dust

Additionally, there is a department in the Wila factory where milling of raw material, is performed. **The process creates metal dust that hangs in the air and gradually settles everywhere.**

“Before we installed the Zehnder air cleaning systems, we had mechanical ventilation that cleaned the air approximately four to five times an hour, but that was not enough” says Maarten Broersma.

The workers complained that the air in which they were working, which contained fumes from the coolant and the dust from the milling machines, was often difficult to breathe and irritated their lungs and throats. Since the working environment is a priority and high on the Wila agenda, they naturally wanted to do something about it.

“During a visit at one of our suppliers in Germany we noticed the Zehnder air cleaning systems; they had some installed, and were very happy with them. We decided to give them a try, and got in touch with Zehnder. Our aim was to reduce the amount of dust in the air by at least 50 %” says Maarten Broersma.

Impressive numbers

Since conditions differ between the summer and winter months (doors and windows are open during the summer months, meaning better ventilation), Zehnder decided to measure the factory air on two occasions, August and January, and then perform a follow-up check one year later. For January, the amount of dust and coolant fumes in the air was reduced by 75 % and 66 % respectively at the two measuring points.

“These numbers are quite impressive. We were fully confident of Zehnder Clean Air Solutions before they installed the equipment, but we still wanted to set a target in order to ensure a good result. Zehnder has definitely not let us down”, says Maarten Broersma and adds:

“A funny thing happened: one of our suppliers that often visits us and is used to spending time in the factory, told me soon after we had installed the air



cleaning systems that he thought the air in the factory had improved. The point is that he wasn't aware of the fact that we had installed the air cleaning systems, but came up with the statement out of the blue!"

A happy workforce

Wila has had the air cleaning systems almost a year now, and the workers feel that the air has definitely improved. **The working environment is better with cleaner air and with fewer workers suffering from headaches and respiratory problems.**

"It is clear that there are now less fumes in the air", says André Ordelman, Assistant Chief in production unit 4. His colleague Tonny Mengerink, a grinding machine operator, agrees: "Yes, the air is much better now." And what about productivity – has it increased since the factory air got better?

"We do not have any numbers that directly correlate the improved air with increased productivity, but on the other hand, a happy workforce will in turn increase productivity, so who knows", says Maarten Broersma.