



Case study

How to have a healthy workplace and business



Customer

Solar Nederland
B.V.



Location

Alkmaar (NL)



Sector

Technical
wholesale



Dust reduction

n/a

At a glance

“The results of the Zehnder Clean Air Solutions air cleaning systems were noticeable right after installation. The air smelled a lot fresher: there was less cardboard dust in the air. The employees now work in a healthier environment.”

Grietzen van den Berg, Technical Affairs Coordinator

Challenges

Solar Nederland is one of the largest suppliers of technical materials for companies in the electrical, heating, sanitation and ventilation. In order to process the large volume of orders quickly and precisely, Solar uses an automated order picking system and several box-folding machines. The constant movement of people and products creates a lot of dust, as well as the cardboard boxes. The dust would typically spread through the entire warehouse at lightning speed, creating a polluted working environment and an increased risk of equipment failure. More importantly, it posed a health hazard to the employees in the warehouse.

About Solar Group

Solar Group is a leading European wholesaler of technical products for the electrical engineering, heating, sanitation and ventilation technology. Solar also provides services to other companies, developing individual skills and helping them introduce efficiencies in their processes to maximise profits.

Benefits

Thanks to the air cleaning systems from Zehnder Clean Air Solutions, the concentration of fine dust in the warehouse has been significantly reduced. As a result, employees enjoy a healthier working environment. Being able to capture the dust particles early means fewer technical faults and less cleaning and maintenance for the box-folding machines. This helps prevent additional costs to the company.



Threat to human and business health

Solar Group is a listed business with a turnover of EUR 1.5 billion. Of the 3,000 employees in Europe, 600 work at 19 locations in the Netherlands. This makes them one of the biggest companies in their sector in the Netherlands.

The large number of products that are ordered on a daily basis from Solar have to be delivered quickly throughout the country. But processing orders manually is labour-intensive. For this reason, Solar uses robots to support warehouse workers in order picking. The automated systems not only select and collect the products quickly, they also prevent human error. This means that Solar can ensure short delivery times and satisfied customers.

The product packaging process is also partially automated. Box-folding machines convert cardboard into boxes for shipping. While this might be very convenient, **working with cardboard also has one major disadvantage: it causes a lot of dust.**

Some of this dust consists of very fine particles which linger in the air for a long time and are particularly damaging to human health. Moreover, a dirty working environment increases the risk of equipment faults, with dust landing on the machinery and clogging up sensors and moving parts. **Solar had a clear objective: lower the amount of dust in the warehouse to ensure healthier employees and a smoother logistics process.**

Good employer and market position

Grietzen van den Berg, Technical Affairs Coordinator at Solar, was clear about the reason for reducing dust. **“First and foremost, we want to be a good employer at Solar. We see it as our duty to protect and improve the health of our employees. That is the main reason for using Zehnder’s air cleaning systems to capture dust.”**

He explained that a lot has changed at Solar in recent years. The logistics process in particular is completely different. “Mechanising and automation has led to further improvements in our distribution system. Not only have we installed several box-folding machines that enable us to put together orders more quickly, but automated



labelling equipment helps us ensure that the correct delivery addresses appear on each box. Finally, modern roller conveyors have allowed us to develop a transport system that sorts the boxes for delivery.”

But the new processes have brought more dust with them, and this means more faults in the machines, more cleaning and maintenance, and more downtime. It all adds up to longer delivery times and higher costs for the company.

Grietzen emphasised why Solar is keen to avoid this: **“Delivering products to our customers quickly and correctly is an important part of our success story. A disruption in the logistics process at Solar means that we cannot offer our customers optimum service. Our customers count on us. That means that this process has to run smoothly, day in and day out.”**

Less complexity and more efficiency

Solar wants to grow in a profitable way. Healthy employees and a smooth process for selecting, collecting and shipping products are therefore necessary to further strengthen the company's excellent market position. Solar has set itself the goal of improving performance by making operational processes less complex and more robust. In practice, this means that it looks for practical solutions that are easy to implement and manage.

They have found exactly that with the "plug and play" air cleaning systems from Zehnder Clean Air Solutions. Six air cleaning units were installed in the warehouse with a filter combination that is geared to addressing the specific dust issues at Solar.

Thanks to Zehnder's incredibly simple and flexible system, the air cleaners can be set up in no time at all; you just have to plug in the units and you're ready to go. Let the air purification begin!



Grietzen is very satisfied with the performance of the industrial air cleaners in his company. **Since installing the air purification units, the dust in our warehouse has been reduced enormously.** Zehnder's system has allowed us to filter (fine) dust from the air. This stops our employees breathing it in. They now work in a healthy environment. That feels good. For our staff, of course, but also for us. We have also managed to reduce faults, maintenance and cleaning to a minimum. This saves us high costs. **Since installing the air purification units, the dust concentration in our warehouse has been reduced enormously. We notice that in everything we do.”**

Solar is excited about the future and the role that air purification will play in it. **“Clean air is essential for a company like ours to function at an optimum level. With Zehnder Clean Air Solutions, we have found an important partner that we can rely on for years to come.”**



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info@zehnder-cleanairsolutions.com • www.zehnder-cleanairsolutions.com

