



Case study

Excellent investment protection and enthusiastic employees



Client

Complete Design & Packaging



Location

Concord, NC (USA)



Sector

Printing for retail packaging



Dust reduction

Up to 53 %

At a glance

“The success of the particle reduction could be felt immediately. The employees were absolutely thrilled. The cleaning work can now be taken care of comfortably by one person instead of two. Our top-quality high-tech equipment is now better protected. And our corporate image is also benefiting from this new level of cleanliness.”

Keith Furr – Plant Manager

Challenges

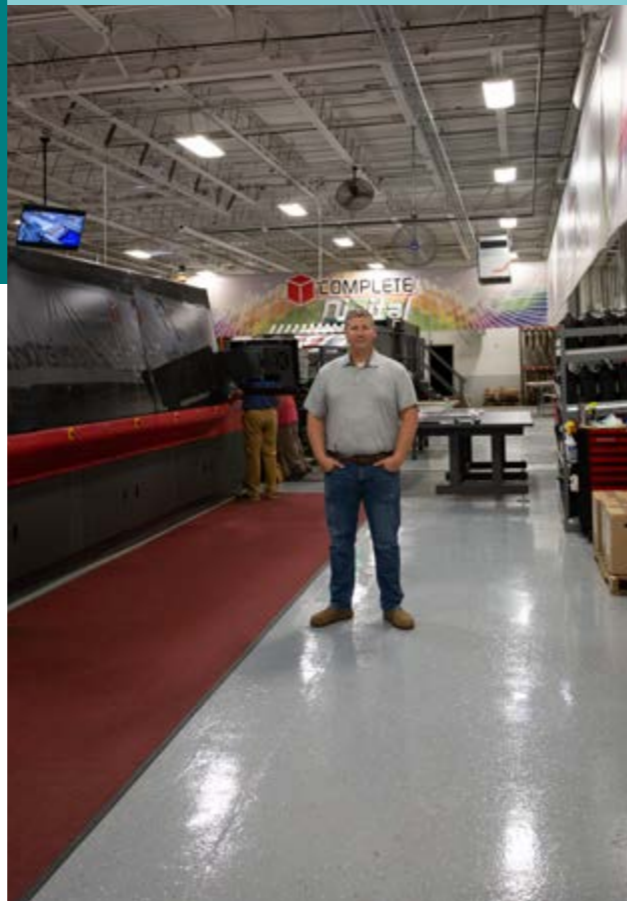
Complete Design & Packaging (CDP) is a leading provider of high-quality printing for retail packaging. The company uses state-of-the-art technologies including an expensive and extremely sensitive high-tech digital printing machine. But cutting and die-cutting the packaging produces a lot of paper dust, which affects both the machinery and the quality of the end products. Two full-time employees were needed just to handle the cleaning, since maintaining a clean and professional appearance is extremely important for a flagship company like CDP that runs regular facility tours.

About Complete Design and Packaging

US-based Complete Design & Packaging (CDP), a leader in their field, offers turnkey high-end printing for retail packaging applications. Situated in Concord, North Carolina, the 11,150m² manufacturing site consists of 13 machines, including the first single-pass digital corrugated packaging press of its kind in the United States. The company was founded in 2002 by Howard Bertram, and employs around 140 people.

Benefits

A healthy working environment and clean, low-particle air are enhancing employee motivation, increasing productivity and improving the overall quality of the end products. The time required for cleaning has also been cut in half. What's more, particle reduction has made a crucial contribution to investment protection, dramatically reducing the strain on the high-value digital printing machine and other equipment.



Cardboard dust – a threat to man and machine

Competition in the packaging industry is fierce, so client retention is a major prerequisite for success. To differentiate themselves, CDP places a strong emphasis on customer service and quality. By investing in the latest technology, such as the Spanish-built EFI™ Nozomi C18000 digital printing machine, CDP delivers on both these company values by offering topflight solutions to their customers. Measuring 60 m long and 21 m wide, the sophisticated yet delicate piece of equipment was a major capital investment and as such, needed to be treated with great care.

The nature of CDP's work involves cutting and slicing activities, **and thus creating a lot of cardboard dust. This circulates in the facility and poses a risk for all equipment and the quality of their end product.** First and foremost, the EFI machine requires protection from cardboard dust. Also, being at the cutting edge of packaging technology, CDP is used as a benchmark for excellence in the retail packaging industry and hosts regular plant tours for industry peers. These factors compell the company to uphold employee health, product quality and a good corporate image, all of which required substantial investment in time, money and manual effort.

Due to the dust build up, **CDP had two full-time employees entirely dedicated to cleaning, while other employees would spend 30 minutes after every shift cleaning their own workspaces.** Similar to preparing a surface to be painted, employees often had to go in on Saturdays to clean the print surface for the next week's production run.

Stubborn cardboard dust even found its way into some of the machines. This meant it had to be stopped, cleaned and started up again – with profit-sapping downtime as a result. This strategy was clearly not efficient enough to fully resolve the dust problem and CDP went in search of an airborne dust collection system to improve both the production and shipping areas.

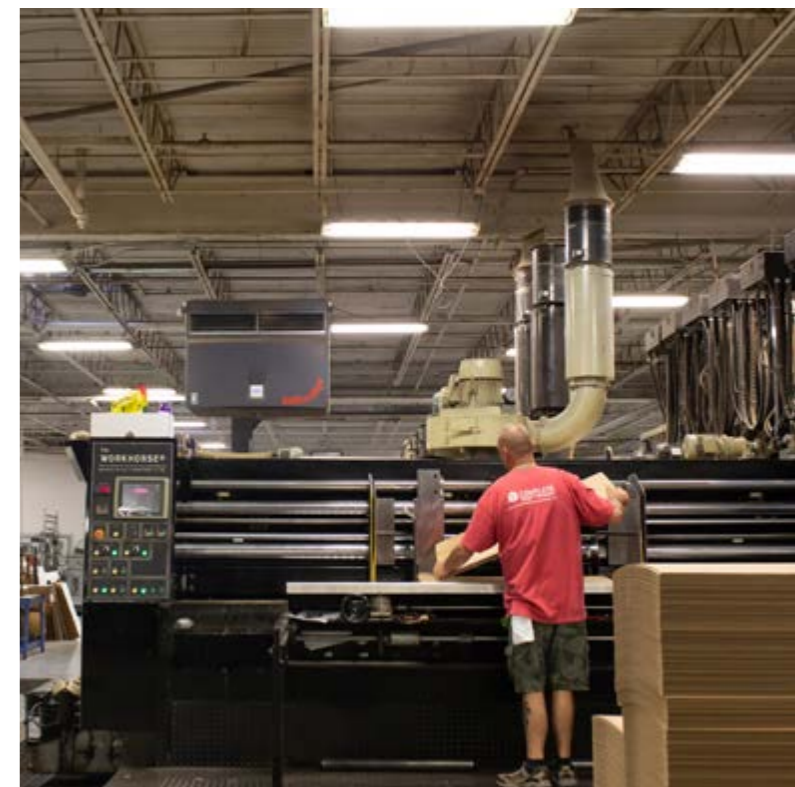
Clean air free of dust particles

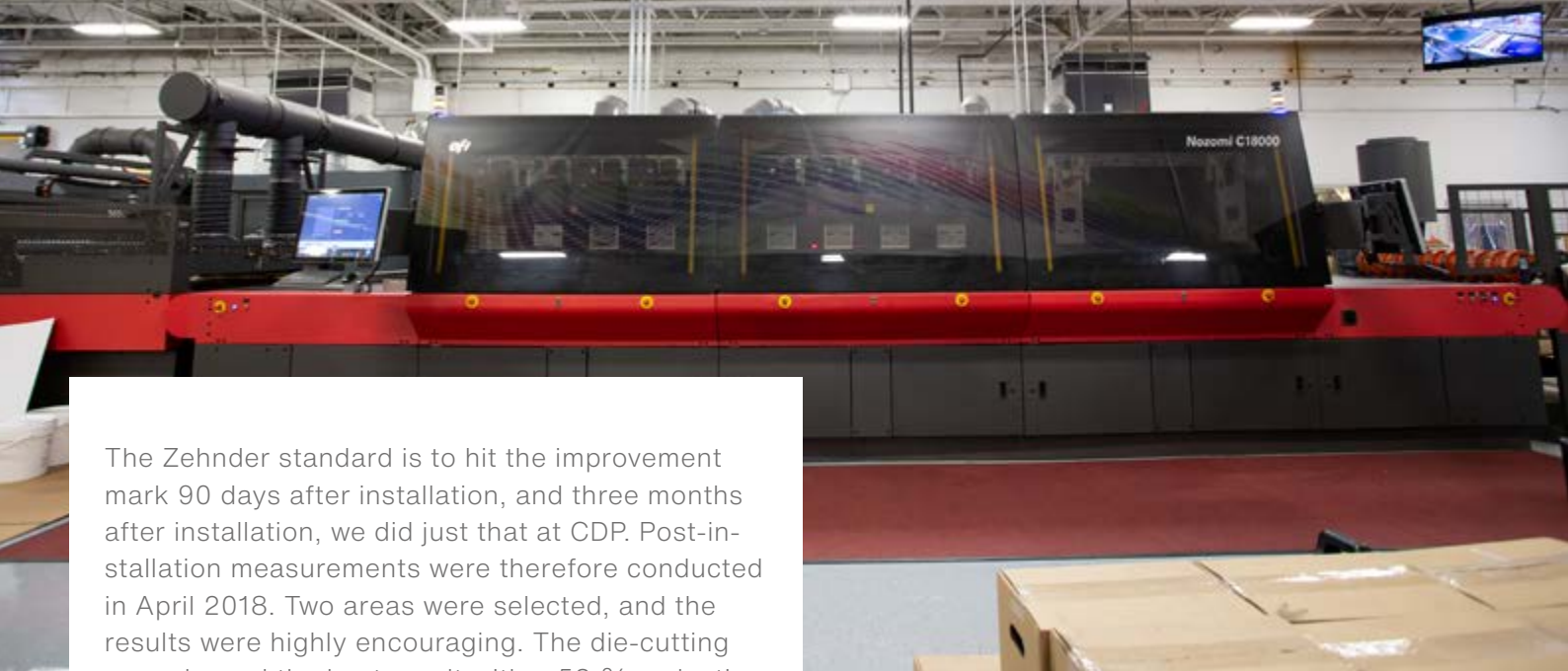
Towards the end of 2017, Zehnder was given an opportunity to conduct a thorough dust and air quality measurement to assess the magnitude of the dust problem. “Zehnder came at the right time! We were really impressed by how meticulous the team was in their assessment and how passionate they were about improving the air quality on our premises”, said Keith Furr, CDP's Plant Manager.

Soon after Zehnder submitted its proposal for a bespoke solution that would efficiently filter the air, CDP placed an order for the installation of seven air cleaning units.

The results speak for itself

The results were almost instantaneous – **employees noticed the reduction of airborne cardboard particles immediately and expressed their gratitude in no uncertain terms.** There is no longer a need to clean over weekends and the two-man cleaning team was reduced to one.





The Zehnder standard is to hit the improvement mark 90 days after installation, and three months after installation, we did just that at CDP. Post-installation measurements were therefore conducted in April 2018. Two areas were selected, and the results were highly encouraging. The die-cutting area showed the best result with a 53 % reduction in dust particles, while the warehouse area next to the printing machine posted a 38 % reduction.

The results were so positive that two more units were added in February 2019 after CDP added another interior wall to the facility. “The Zehnder team’s response time was remarkable,” Keith proclaims. “Overall, the installation process went extremely smooth with minimum impact on our production processes.”

A clean, healthy working environment is a win-win for employees and visitors alike. **It helps increase staff motivation, improves individuals’ output and has a positive effect on the overall quality of the final product.** And in CDP’s case, their just-in-time and on-demand printer is now even better protected.

Complete Design and Packaging has since become a vocal advocate for Zehnder. **They believe the air cleaning units have truly improved their business and they’re not shy to share it.** For example, CDP was one of three plants to host plant tours during a recent digital printing conference and promoted Zehnder with vigour. They even have a Zehnder placard on site with our contact details on it so that interested plant visitors can also experience the benefits of clean air – definitely the start of a beautiful lifetime partnership.