

# 3D laser scan to improve efficiency

OUR ENGINEERING AND DESIGN BUSINESS IS BECOMING MORE AND MORE DIGITAL. RECENTLY, WE COMPLETED A PROJECT FOR DE OLIEBRON IN THE NETHERLANDS, IN WHICH WE MADE A 3D LASER SCAN OF A PRODUCTION FACILITY. THIS WILL IMPROVE THE EFFICIENCY OF THE DESIGN PROCESS AND ALLOW THE CLIENT TO EXPAND MORE EASILY.



De Oliebron is Europe's biggest, brand independent, lubricant blender and seller that supplies 825 types of oil to international clients. As their business grows, so does the need to build new storage tanks and other facilities.

## Create an accurate model

Niek Stokman, Bilfinger Tebodin's Oil & Gas Business Developer in the Netherlands, explains how we supported that need using digital technology. 'Expanding the plant was challenging because they had limited as-built documentation about their facility, which had been repeatedly renovated over the last 50 years. Expansion required time-consuming surveys to verify measurements and specifications.'

That's why Bilfinger Tebodin decided to use building information modeling (BIM) to create an accurate model of the production facility. 'Colleague Dave Koomen, BIM and New Digital Business Manager, oversaw the technical side of the project.'

## 3D laser technology

Stokman continues: 'First, we made a 3D laser scan of the production facility that resulted in a point cloud, a digital record of the space. It was then converted into 3D objects, such as the walls, roofs and steel structure of the building. This model, including a layout of the plant and cross sections of the building, was delivered to De Oliebron. They can now use AutoCAD or Navisworks software to plan plant extension and modification projects.'

## Smaller solutions for smaller clients

'3D modeling is relatively new to us', says Henco Noordermeer from De Oliebron. 'We are excited by the possibilities.' Niek Stokman hopes to eventually make a 3D scan and model of the complete site in Zwiijndrecht, which includes several production halls, warehouses and an outside area with storage tanks. 'We can help our clients by taking relatively small and affordable steps in the digitalization process. This is especially attractive to smaller clients who are looking for smart and sustainable solutions to their engineering challenges.' ■

## Industrial 360°: first steps towards a digital plant

Besides laser scanning we can now create a 3D photo-realistic environment within a factory with 'Industrial 360°'. Low budget, fast and approachable. We capture industrial sites and combine these with 3D point data. In no time this becomes a transparent information model in HD. Expect more about this soon.