

3D Engineering

– efficiency in work processes

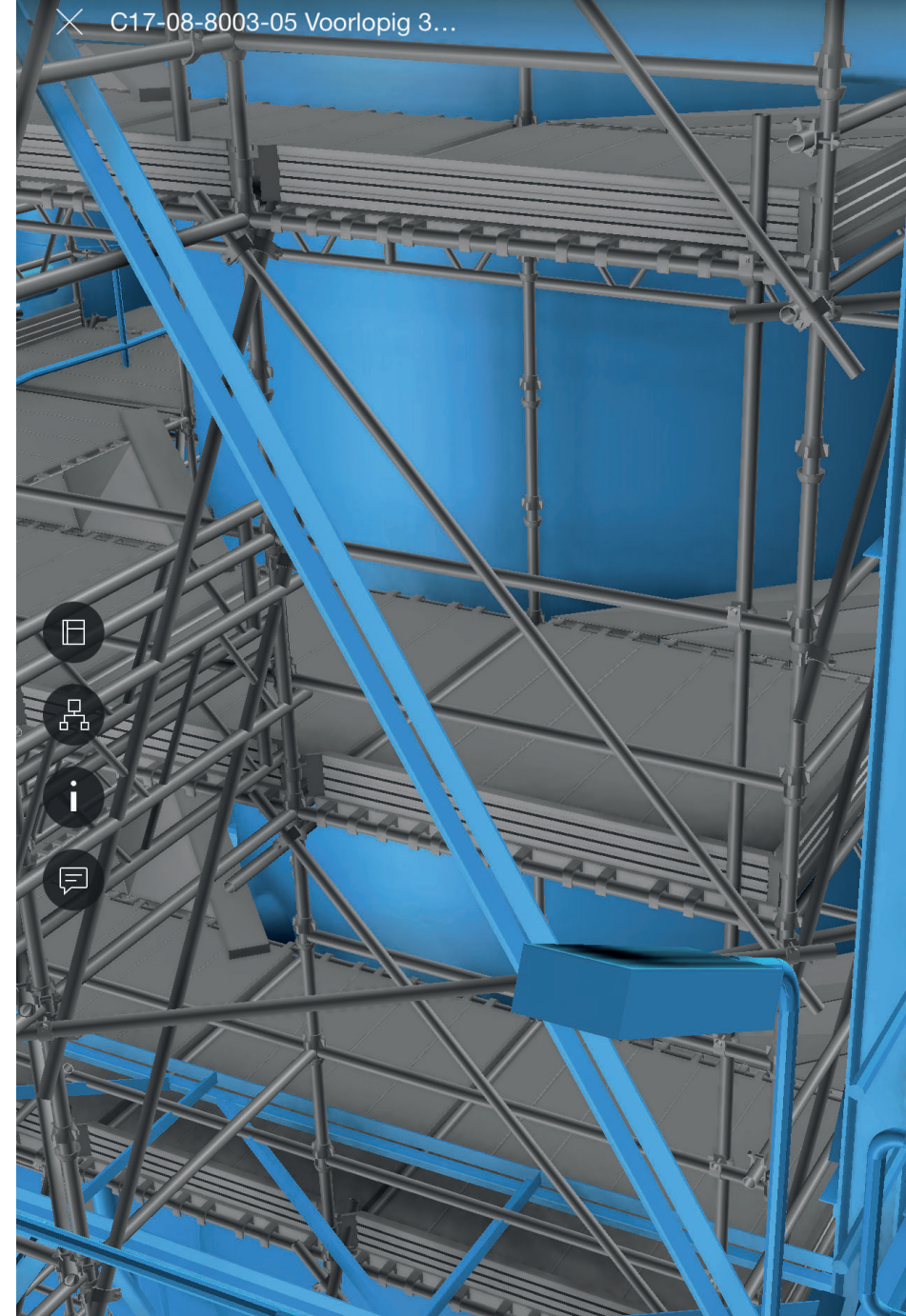
The 3D Engineering software for BIM (Building Information Modelling) supports a multidisciplinary project approach and design process. Its powerful 3D tools facilitate the creation of detailed construction models, and BRAND® have successfully applied the method to complex scaffolding configurations.

The method allows the engineering of scaffolding to be set out in detail in advance, allowing for the anticipation of later obstacles at height (even when setting up the first stanchions), and avoiding the loss of precious time due to unexpected modifications. The design can even be tested in advance for strength and stability.

3D scanning

If there are no high-quality drawings available of a factory or component, a 3D scan can be produced on-site. The scan will be sent digitally to our drawing office, where a full 3D scaffolding model will be created.

The 3D model is then exported to the EEM calculator to generate a quote. All external forces, such as workload and wind, will be entered by the structural engineer. Modifications to the design can be entered in the event of any complexities in the project. If the calculation satisfies the calculation criteria, the design can also be optimised in order to reduce the amount of equipment required.



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The 3D model of the scaffold includes a full list of materials, which our logistics department can use to prepare cargo. For setup and inspection purposes, the computer model can be used on a tablet, allowing rotation of the entire construction and magnification of details on-site whenever necessary. This method is far more accurate, efficient and user-friendly than making assessments based on A0 drawings.

Efficiency gains

We recently and successfully applied 3D Engineering during a number of refinery projects in Rotterdam. Our expert engineering team were extremely satisfied: *'We did a 3D scan of a column, and constructed the scaffold in the resulting 3D model. The result was mind-blowing.'*

The high quality of the 3D scan meant that the scaffolding construction was accurate and true-to-life. This method could represent the future of engineering for scaffolding within our organisation.

The software also performed an efficient and precise static analysis of the construction, and all the required information was supplied clearly and in full. This method will greatly improve efficiency throughout the entire process!

