

WHITEPAPER

Virtual walk-throughs

Reducing costs with Virtual Reality



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Content

Plant walk-throughs confront project teams with numerous challenges: from high travel efforts for on-site appointments, to tedious audits on the screen, to overseen faults in the fabricated plant.

Virtual Reality (VR) opens up new possibilities to overcome these challenges and especially to reduce additional costs.

[Find out more in this whitepaper.](#)



THAT wouldn't have happened with VR ...



Challenges of the classical plant inspection

Companies face a few challenges in conventional plant walk-throughs, which have a negative impact on human resources and costs:

1. High travel effort with cost and time invest

Plant walk-throughs often require travel to different locations. This is associated with significant costs and time investments - for both the company and the respective project employees.

2. Impassable audit of design data in the planning stage

With large-scale plants, it is often difficult to reliably check design data in the planning phase. Visualisations of 2D or 3D models on the computer screen do not always provide an accurate representation of the actual size and spatial relations of the plant. The "on-site feeling" is missing.

3. Misjudgements of sizes and relations

Digital-only plant walk-throughs offer a risk of misjudgement in terms of sizes and ratios. Spatial imagination is limited for many people. This leads to inaccurate assessments and potentially costly errors in plant planning and construction.



Advantages of virtual plant walk-throughs

The use of virtual plant walk-throughs offers several advantages in order to reduce costs, enable efficient planning and inspection:

Decentralised walk-throughs with groups in VR

With VR, decentralised walk-throughs with remote teams can be realised. Project participants can meet at the same time in VR and explore the plant together without being physically at the same place. This saves travel costs and enables more efficient collaboration.

Experiencing sizes and relations before building

The virtual tour makes it possible to experience real sizes and relations of the plant before the actual construction. This leads to more precise planning and better decision-making with regarding to the layout and configuration of the facility.

Virtual check of collisions, ergonomics, emergency exits & co

By using VR, collision detection, ergonomic assessments, emergency exit planning and other important checks can be realised directly in the virtual environment. Engineers are able to identify and fix potential issues at an early stage, before the plant is built. This saves time and money by avoiding expensive adjustments and changes.



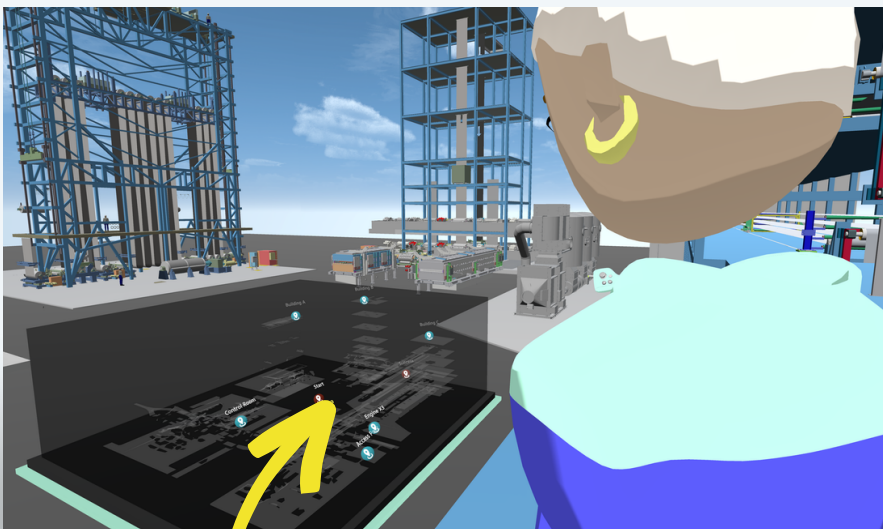
In VR, group walk-throughs can be realised quick and easy. Even large plants can be inspected together from an office chair.

Increasing remote capability

VR increases the company's remote capability by making even common on-site appointments - such as a walk-through - virtually possible. In this way, companies become more digital and can also benefit from a resilient infrastructure in the case of a crisis.

Exploring construction sites at a safe distance

VR plant walk-throughs are safer because they simulate potential risks and hazards in a virtual environment, thus minimising the risk of injury during on-site inspections. This allows risks to be identified and hazard prevention measures to be taken before physical plants are built or entered. Employees can also conduct safety training in a virtual environment.



But don't worry, of course you will be able to wear your construction helmet in VR as well ;-)



Result

The virtual walk-through of plants generates benefits that reduce costs and make planning and inspection processes more efficient. By using VR, companies are able to organise decentralised inspections, check collisions and other inspections, and gain a realistic impression of the sizes and relations of the plant.

Our recommendation

In order to use the advantages of Virtual Reality, companies should first define their needs of VR and their use cases. After that: find and test a suitable VR solution, select hardware and qualify your teams. Experiences with our clients has shown that expert support during the implementation of VR is an essential factor of success. That's why we recommend: Let us support you in your first steps into the virtual world!

** WeAre will be happy to be at your side during all of these steps **



Get your Expert Call!

You'll know more in just 10 minutes!

In an initial telephone conversation, we check your VR needs.

- ✓ **we identify your VR potential**
- ✓ **and check if WeAre Rooms is a match for your business**
- ✓ **100% non-binding**



*Arrange
your Call*



I'll be happy to advise you.

MARC PROBST

Customer Success Manager

About WeAre

WeAre is your strategic partner for the implementation of Virtual Reality in mechanical and plant engineering. We will accompany you all the way from the analysis of your needs to the roll-out of Virtual Reality and the long-term VR infrastructure in your company. With our VR software "WeAre Rooms" we enable complex machines and plants to be grasped by your project teams & customers and reduce planning errors before production. Other companies such as SMS group, Vorwerk and PIA Automation already discuss their CAD files by using WeAre Rooms and achieve cost savings of up to 100,000€ per project.



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