



Virtual Reality

Experience your industrial furnace system in real-time and real size as if it were already installed. Plan and collaborate in an immersive multi-user experience.

VIRTUAL REALITY

Plan & collaborate in an immersive multi-user experience

CHALLENGE

As one of the leading international companies supplying customized, complex industrial furnace systems for the heat treatment of metals, Tenova LOI Thermprocess encounters barriers within the daily technical communication that have to be mastered. The planning, installation and commissioning of complex, customer-specific plant technology involves many experts from different disciplines, who need to communicate with each other continuously. One challenge is that large-format systems initially only exist on documents in the planning phase and are not in front of you in full size right from the start. The experts of different disciplines all have various starting points and perspectives, which are not always easy to combine congruently. It requires a high level of abstraction and imagination if multidimensional visualization options are not available. This increases the occurrence of misconceptions and errors.

LOI'S DIGITAL SOLUTION

With the use of virtual reality (VR) software Tenova LOI Thermprocess can visualize and experience the plant design as well as 3D scans of existing plants (surface derivation or point cloud) in early design stages in detail. This immersive visualization makes the process, in all its complexity, easily accessible to all experts involved. As the VR software is also a conferencing tool, design review meetings can be set up - independent of location. Each expert is able to discover the equipment, discuss and mark requirements directly at the virtual plant. Moreover, the participants' avatars can use targeted gestures and even have facial expressions. The 3D sound of the VR headsets ensures spatial hearing and numerous tools enable communication and documentation of errors and requirements. Participants can point to items with their virtual finger or use a virtual laser pointer. The use of whiteboards, notes and free 3D sketches complements the

communication capabilities. Tenova LOI Thermprocess makes effective use of this interactive information exchange between different disciplines, increases productivity and minimizes the occurrence of errors. In addition to plant reviews, trainings, e.g. for maintenance, can also be conducted before the plant is installed. By using VR as the basis of its digital engineering communication, the company is prepared and can avoid problems in time.

YOUR ADVANTAGES

- Discover your equipment prior to the installation on site
- Improved communication
- Global cooperation on 3D CAD files
- Record requirements directly at the virtual equipment
- Make ideas visible and document them for everyone
- Avoidance of costly errors
- Maintenance training prior to the installation on site
- Safe time and decrease in travel costs



Sustainable solutions for a green transition of metals



www.tenova.com

Headquarters

Tenova S.p.A.
Via Gerenzano, 58
21053 Castellanza, VA
Italy

TECHINT GROUP

tenova
LOI THERMPROCESS

LOI Thermprocess GmbH

Schifferstrasse 80
47059 Duisburg
Germany
e-mail: service-loi@tenova.com

www.loi.tenova.com