



Services

KHS CAMPUS VIRTUAL

The new way to learn

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KHS Campus Virtual is the latest module in the extensive training portfolio offered by the Dortmund machine and systems manufacturer. It facilitates learning on digital machine models in a virtual environment without the need for investments in hardware. And thanks to gamification, there's also plenty of fun involved!

KEG

NON-RETURNABLE GLASS

RETURNABLE GLASS

NON-RETURNABLE PET

CAN

RETURNABLE PET

PHOTOGRAPHY / ILLUSTRATION

Frank Reinhold, Etteplan Germany GmbH

COVER PHOTO

KHS' Virtual Training Center not only provides playful study units but also e-learning elements, films and documents and manuals.

When beverage producers equip their production systems with cutting-edge technology from KHS, this always results in greater operator friendliness and less maintenance effort. Work on the machines nevertheless requires a certain amount of expertise both during commissioning and later in ongoing operation. In order to teach operators the necessary expert knowledge and skills, the systems provider offers its customers an extensive range of training courses in the form of KHS Campus that consists of four main modules.

- The first and proportionally most significant, **KHS Campus Live**, is made up of in-house courses at the company's dedicated training centers, plus various on-site teaching sessions at the respective bottling plant. Trainers specially provided according to customer specifications issue basic instructions on the operation and maintenance of the plant engineering, including practical exercises and in-depth knowledge of the machine.
- Higher-level learning content such as line optimization or quality assurance is taught in **KHS Campus Seminars**, the second module in the program. This broad spectrum of further training courses ranges from standard to more specific topics and is aimed not just at a customer's operative employees but at all other interested parties as well.
- The third module is entitled **KHS Campus Develop**. This focuses on holistic personnel development. KHS helps its clients with a range of HR tasks from selecting employees and assessing new candidates to providing individual training courses complete with certificates documenting the skills and roles achieved by those taking part.
- The fourth module represents KHS' newest mode of training: **KHS Campus Virtual** is a completely new form of self-study in the virtual environment. With this, users can explore single machines or entire beverage lines with the help of an avatar and move to what are known as study points on a digital machine twin, where they will find interactive and instructive learning nuggets or small, compact teaching units.

At a glance

BLENDED LEARNING



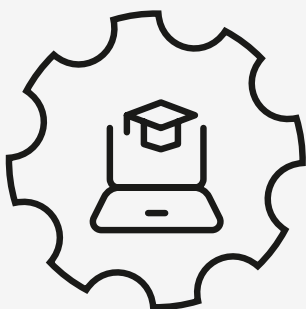
Online training

- *Online kick-off meeting*
 - *Online courses*
 - *Practical online training*
 - *Q&A units*
-



In-person training

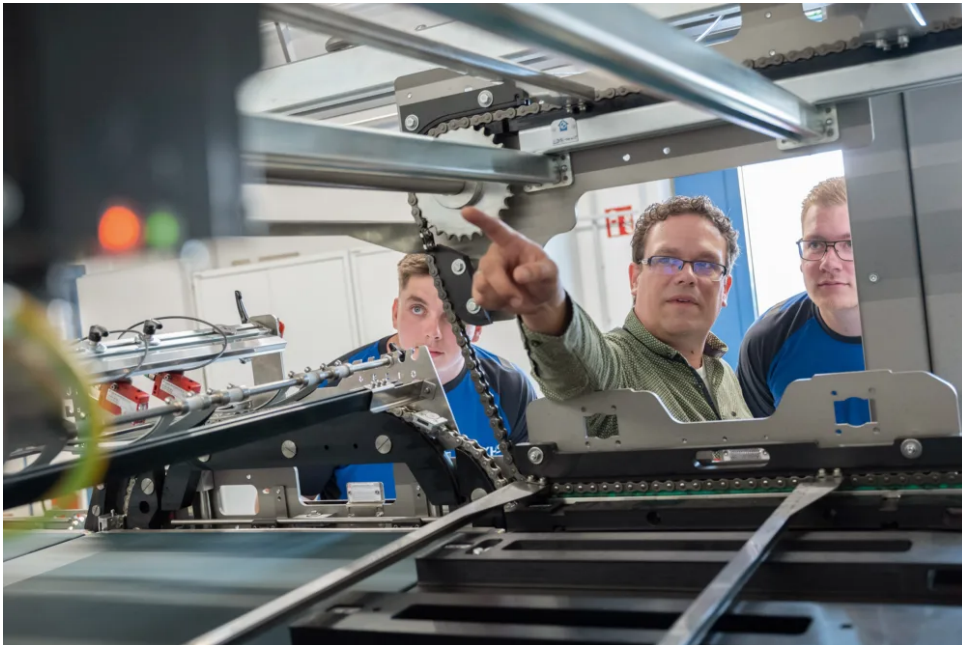
- *Theory courses*
 - *Coaching*
 - *Training in production*
 - *Practical tests*
-



Self-study

→ *Virtual Training Center*

- *E-learning*
 - *Teaching videos*
 - *Short explanations*
 - *Playful learning*
 - *AR/VR*
-



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KHS Campus Live: practical exercises on 'real' machines are carried out at the company's own training centers.

Flexible learning

The key benefit of KHS Campus Virtual is the high degree of flexibility for students, stresses Ralf Müller, who has headed the Professional Training Department at KHS for over nine years now. "In addition to our in-person and online courses, here we provide what's known as learning on demand. Regardless of

whether an instructor is actually present or not, users of this service – also KHS’ own service engineers – can specifically select the content they need whenever it suits them.”

In this multimedia self-study environment – the KHS Virtual Training Center (VTC) – participants are set various tasks that comprise e-learning elements, films or archived documents and manuals, for example. The interactive components of the service are something Müller finds particularly important; they enable people to learn proactively and thus retain what they learn for longer than if they were to simply click on and consume a video, for instance. KHS Campus Virtual thus provides lots of sequences where the user has to actively take part to achieve their study goal.

So that learning is also fun, Müller and his colleagues make use of gamification or learning through play. “As in a computer game, students first chose their own avatar and personalize it. This then moves through the virtual environment, exploring entire lines or single machines. When you click on certain components, interactive learning points then open which are underlaid with nuggets. You collect points for each study unit that you can save like a high score in a game once you’ve finished. This means that next time you can simply carry on training at the level you last reached.”

“KHS Campus is a balanced blended-learning concept with different synchronous and asynchronous elements.”



Ralf Müller
Head of Professional Training, KHS

Realistic experience

So that the experience for the user is as authentic as possible, the KHS Training team uses three devices to implement its program. Firstly, the virtual environment is programmed based on the internationally established Unity gaming platform that's used by countless computer games of renown. Secondly, the programmers work with a team of 3D graphic designers who create rooms for the entire environment that are as realistic as possible. The machines are integrated as digital twins: with the help of state-of-the-art rendering technology they are converted so that full views of the machinery are displayed without overloading the computer, with specific details activated only when the user zooms in on them. Thirdly, KHS hosts its VTC

on a high-performance server. This means that it runs perfectly on any customer computer, with no need for a separate gaming PC.

Before the rollout at the start of 2024, KHS presented its plans and first pilot schemes to a specialist audience at a number of trade shows, congresses and forums. “Our concept was consistently met with great interest,” smiles Marco Palme, head of the KHS Training Center for the production sites in Bad Kreuznach and Worms. “The low-threshold technology and easy platform access in particular – with which we’re setting new standards in mechanical engineering – ensure a high level of acceptance. And the user prompting is so intuitive that even I can very easily navigate my way around,” he jokes, pointing out that he doesn’t exactly count himself as one of the gamer generation.



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In addition to in-person courses at its training centers, KHS also offers online teaching units and various self-study options.



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In gamification – that combines study with play – users select their own avatar they then move through the machine with.

On khs.com find out more about how we support our customers above and beyond the installation of their KHS system with our various training courses.

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Big plans

To make virtual training even more stimulating in the future, KHS has a number of ideas that take the program beyond its current level. “We’re thinking about setting up a multiplayer mode and introducing AR and VR elements or artificial intelligence so that users can interact with chatbots,” Palme says. Machine models and learning content are also constantly undergoing further development with these options in mind.

The initial focus will be to continue to expand the current spectrum of study units, however; what started out with KHS canning lines and the Innofill Can C and Innofill Can DVD fillers

now includes numerous non-container-dependent learning sessions on process technology, labeling, packing and palletizing. PET lines with their various block variants and the glass container segment will also feature in the near future. “Our service is being further developed in close dialog with our customers according to their requirements,” Müller announces. “We’re constantly incorporating new machine types so that in time we can build up a comprehensive library of our standard product portfolio.”

The VTC is available in seven standard languages, with the accent on using as little text as possible, instead falling back on pictograms, symbols and numbers, for example.

“Low-threshold technology and easy platform access ensure a high level of acceptance.”



Marco Palme
Head of the KHS Training Centers in Bad Kreuznach and
Worms, Germany

Interdisciplinary team

An internal, global team of employees from all of the KHS production sites is responsible for the development of the study content. “By establishing new communication structures across the various company departments and regions, we’re an excellent example of how interdisciplinary teamwork can work,” states Müller.

Access to KHS Campus Virtual can be gained during procurement of a new machine or for an existing system through After-Sales Service and the digital KHS Connect customer portal. Various licenses are offered to this end: either personalized for an individual employee or applicable to a single machine or entire line. The licenses are valid for one year, allowing personnel to use the VTC repeatedly to refresh their expertise.

When asked how this new form of learning fits into KHS’ training portfolio in general, Müller says that “with this fourth module in KHS Campus we’ve managed to develop a balanced blended-learning concept with different synchronous and asynchronous elements. This doesn’t just include our traditional in-person teaching units and range of online courses that grew rapidly during the corona pandemic; it also provides a number of self-study options for especially effective learning in sensible portions.”

This brings KHS a good deal closer to its objective of making training more prevalent as an important factor in boosting customer loyalty and satisfaction. “Qualified personnel mean less operator effort, more efficient use of materials and longer maintenance intervals. This all has a positive impact on the line efficiency and service life of our machines on site for beverage producers,” concludes Müller.

Any further questions?

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