

JOURNEY to a LINEAR FUTURE

The speed at which information technology is changing factories is remarkable. But how are the more basic technologies progressing on their journey to adapt to the Factory of the Future?

Until recently, Linear Motion Technology has been considered to play a mainly mechanical role, but recent developments in digitalization have changed all that.

The Digitalization of Linear Motion Technology

The Linear Motion Technology 'journey' includes configuration, ordering, commissioning, operation

and maintenance. We're here to guide and support you throughout the entire process chain – with software tools, online services and intelligent systems that meet your factory's needs – maximizing production and shortening time-to-market. As well as providing solutions for manufacturers today, we're constantly refining and developing our technology to fulfil the needs of the Factory of the Future.

Step 3 commissioning

In the future, all system data will be available – including all access data – which will save a lot of time. The axis parameters can be stored digitally in different ways, whether in the motor encoder, in the integrated measuring system or in the digital nameplate.

Step 4 operation

Linear Motion Technology will need to play a key role in the operation of the Factory of the Future. Data, such as temperature and vibration, will be picked up by sensors, which could be integrated, for example, into the runner blocks of linear guides or attached externally to the axes and connected via open interfaces. Our intelligent servomotors are another option capable of handling sensor functions. This data can then be passed on to our cloud service ODin to undergo further analysis. Information such as machine availability, quality and efficiency will be displayed, so you're always well informed, wherever you are, and able to react quickly.

Step 5 service and maintenance

In the future, the sensors in our Linear Motion Technology will be able to record operating conditions permanently and tell you what maintenance, servicing and spare parts are required. Thanks to the digital nameplate, the parts list and configuration of the linear modules is known. So the relevant spare parts are displayed directly in the online shop and can be ordered with the click of a mouse. For added peace of mind, we'll also provide a range of manuals and how-to videos online.

Step 2 ordering and delivery

Because all the product data will be available, products can be ordered in a few clicks. We can receive orders, commission systems and despatch almost immediately. In future, order tracking will be available throughout the process.

An ongoing commitment to the journey ahead

Linear Motion Technology enables us to help you tap into previously unused potential to increase productivity and flexibility during your day-to-day operations. It reflects our commitment to make sure that Linear Motion Technology continues to be a key component of the manufacturing process today, whilst also developing the technology needed in many years to come.

In the future, our Linear Motion Technology solutions will enable

manufacturers to capture data, optimize processes and predict wear sooner and more accurately than ever. We already have clear ideas of how to intelligently integrate our Linear Motion Technology into the Factory of the Future, in which production will be changed over via software command, and sensors will monitor all operating conditions – which in turn will enable predictive maintenance to significantly reduce downtime. The journey towards these goals has already begun.

5 steps to a shorter time-to-market

Step 1 product selection and sizing

Time is money in manufacturing. That's why we've significantly simplified this first step. Our seamless online tools enable you to configure linear components and axes, and in future even entire multi-axis systems, with increased speed and simplicity. After entering constraints such as stroke, workpiece weight and cycle time, the tools generate suggestions that the user can verify in their CAD environment. In future, a digital twin will accompany the components and systems for the whole lifecycle. This will be integrated into a virtual environment that will allow users to load simulations, for example, directly into the control system.

