

## **Safety at high speed with the igus e-chain system in the linear motor robot**

**Side-mounted energy chain from igus, ensures reliable energy supply in high-speed lightweight linear robots**

**Twice as fast and half as heavy: this is what makes the linear motor robot from FIBRO LÄPPLE TECHNOLOGY (FLT) different from other solutions. In order for the linear robot to be able to get production up and running quickly and reliably, a compact, durable and quiet energy supply was required. A side-mounted igus energy chain system with pre-harnessed chainflex cables proved to be the optimal solution.**

Linear robots are the automation tool of choice for machine or press loading, order picking and high-bay warehouse loading or even for transport and handling tasks. Due to the demands of production for faster, more intelligent and economically profitable solutions, FIBRO LÄPPLE TECHNOLOGY has developed a linear robot which fulfills the desire to maximise production performance. In a new carbon design, the linear motor robot saves up to 50 per cent in weight compared to conventional solutions. The weight reduction enables twice the speed, accelerations of up to  $26\text{m/s}^2$  and twice the positioning accuracy. Instead of a rack and pinion drive, the designers chose a linear motor because it allows very high dynamics. An unsupported energy chain of the E4.1 series from igus ensures a secure energy supply for the z-axis. The integration of a suitable energy chain solution in the compact installation space of the x-axis was a challenge, because a classic gliding or unsupported solution was out of the question due to the high forces. "Together with igus, we therefore decided on a side-mounted energy chain", explains Boris Bind, Head of Mechanical Design and Development at FIBRO LÄPPLE TECHNOLOGY.

### **Complete energy supply system directly from a single source**

An E4.1 series energy chain is used with additional sliding elements that further reduce wear. The designers also used the igus range for the cables. They chose pre-harnessed chainflex cables - so-called readycables - that are specifically designed for use in the energy chain and, thanks to a large number of tests in the company's own 3,800 square metre test laboratory, are given a guarantee

for 36 months. The complete system is housed in a special guide trough, which further minimises noise and increases the reliability of the system.

**Caption:**



**Picture PM0520-1**

A side-mounted igus energy chain system, ensures safe cable guiding of the x-axis of the linear motor robot from FIBRO LÄPPLE TECHNOLOGY. (Source: igus GmbH)

**PRESS CONTACT:**

Harish Bhooshanan  
Product Manager  
E-ChainSystems®

igus (India) Private Limited  
36/1, Sy. No. 17/3  
Euro School Road,  
Dodda Nekkundi Industrial Area - 2nd  
Stage  
Mahadevapura Post  
Bangalore - 560048  
Phone : +91-80-49127809 (Direct)  
Harish@igus.in  
Visit us on [www.igus.in](http://www.igus.in)

**ABOUT IGUS:**

igus GmbH is a globally leading manufacturer of energy chain systems and polymer plain bearings. The Cologne-based family business has offices in 35 countries and employs around 4,150 people around the world. In 2019, igus generated a turnover of 764 million euros with motion plastics, plastic components for moving applications. igus operates the largest test laboratories and factories in its sector to offer customers quick turnaround times on innovative products and solutions tailored to their needs.

The terms "igus", "Apiro", "chainflex", "CFRIP", "conprotect", "CTD", "drygear", "drylin", "dry-tech", "dryspin", "easy chain", "e-chain", "e-chain-systems", "e-ketten", "e-kettensysteme", "e-skin", "e-spool", "flizz", "igear", "iglidur", "igubal", "kineKIT", "manus", "motion plastics", "pikchain", "plastics for longer life", "readychain", "readycable", "ReBeL", "speedigus", "tribofilament", "triflex", "roboLink", and "xiros" are protected by trademark laws in the Federal Republic of Germany and internationally, where applicable.