

## **Ready-to-connect readychain from igus reduces assembly times of machining centres**

Taiwanese tool manufacturer Hartford uses fully-assembled energy chain systems from igus in its robotic machining centres. This cuts out many process steps for the manufacturer, reducing assembly time from several weeks to just half a day. Another benefit for Hartford is that when it orders readychain from igus, it is from a single source and delivered onsite fully tested.

In hardly any other industry are throughput times as important as in the machine tool industry. Cutting out individual work steps means that considerable savings in process costs can be achieved. The design engineers at Hartford, the largest manufacturer of CNC machining centres in Taiwan, know this as well. The manufacturer has 50 years of history exporting more than 46,000 machines to 65 different countries.

The company's largest robotic machining centres, called the AERO series, are used for very large components needed for the aerospace industry, where precision and reliability are critical factors. For Hartford, it is especially important to have a reliable cable management system from the control cabinet to the moving parts, which include spindles and motors. At the same time, all the data about axis position and dynamics must be passed back to the control system without interruption. All this at accelerations of up to 0.5 g and a maximum travel speed of up to 60 m/min on the first model in this series, the AERO626.

This is why Hartford's engineers turned to igus, the only supplier to produce 'readychains' which are delivered pre-assembled to customers' requirements and ready to connect. An additional benefit is that, as all chainflex cables on the machine have an oil-resistant PUR outer jacket, protective hoses are superfluous therefore reducing the size of the required chains. The absence of these protective hoses also help reduce cost and ease maintenance.

In a process of close collaboration between igus and Hartford, a 3D drawing of the readychain with assembly frame was then created in order to simulate the assembly procedure. "The benefit could be seen immediately," says Justin Leonard, the-chain director at igus. "The first energy chain fitted with all

electrical cables was installed on the machine in an hour. The second chain with hydraulic hoses was installed even faster, taking just 40 minutes.”

Normally, machine tool manufacturers try to avoid situations where too many different work steps have to be carried out on a system at the same time. A lot of manual work done by different employees does not automatically enhance efficiency; on the contrary, it increases the probability that errors can occur.

Previously, two employees took one and half weeks for the work on the X axis of an AERO system and a further week for the energy supply of the Y and Z axes. By using igus readychains, all four e-chains from igus can be fully installed in half a day. In this way, Hartford is able to cut out some work steps, reduce process cost and, at the same time, greatly improve productivity.

For more information about igus readychains, please visit: [www.igus.co.uk/readychain](http://www.igus.co.uk/readychain) or call igus directly on: 01604 677240.

### **Suggested image captions:**

*Image 1 - igus energy chains, including cables and mounting frame, are delivered to Hartford as fully-assembled readychains.*

*Image 2 - igus readychains are installed in less than half a day, instead of taking several weeks.*

### **igus resources:**

-  LiveChat with our technical team at [igus.co.uk](http://igus.co.uk)
-  Follow us at [twitter.com/igusUK](https://twitter.com/igusUK)
-  Watch our videos at [igus.co.uk/YouTube](http://igus.co.uk/YouTube)
-  Connect to us at [igus.co.uk/Facebook](http://igus.co.uk/Facebook)
-  Read our blog at [blog.igus.co.uk](http://blog.igus.co.uk)

### **About igus:**

Based in Northampton in the UK and with global headquarters in Cologne, Germany, igus is a leading international manufacturer of energy chain systems and polymer plain bearings. The family-run company is represented in 35 countries and employs 3.800 people around the world. In 2017, igus generated a turnover of 690 million euros with motion plastics, plastic components for moving applications.

With plastic bearing experience since 1964, cable carrier experience since 1971 and continuous-flex cable since 1989, igus provides the right solution based on 100,000 products available from stock with between 1,500 and 2,500 new product introductions each year. 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, chainflex, CFRIP, conprotect, CTD, drylin, dry-tech, dryspin, easy chain, e-chain, e-chain systems, e-ketten, e-kettensysteme, e-skin, flizz, ibow, iglide, iglidur, igubal, manus, motion plastics, pikchain, readychain, readycable, speedigus, triflex, plastics for longer life, robolink and xiros are protected by trademark laws in the Federal Republic of Germany and internationally, where applicable.

All other registered trademarks and trademarks are the property of their respective owners.

**For further information, please contact:**

Megan Campbell, igus

Tel: 01604 677240

Email: [mcampbell@igus.co.uk](mailto:mcampbell@igus.co.uk)

Sumbul Baig, Publitek

Tel: 01582 390980

Email: [sumbul.baig@publitek.com](mailto:sumbul.baig@publitek.com)