

Editorial

What do Milan and Atlanta have in common? Both cities host a leading international exhibition for the woodworking industry every two years. While in Europe the Xylexpo shone with more than 850 exhibitors in May, the number of exhibitors at the IWF in Atlanta at the end of August even passed the 1,300 mark.

It goes without saying that igus® had its own booth at both fairs, and presented numerous product innovations.



Michael Blaß

We will be reporting on several of these in this new issue of woodworking@igus.de. And we will be sketching current applications where pre-harnessed igus® energy chain systems, Chainflex® cables, maintenance-free iglidur® plastic plain bearings and DryLin® linear plain bearings are proving their worth in the woodworking industry.

I would particularly like to draw your attention to our many new Internet tools, to be found at www.igus.de. These include the online pin-cable configurator „QuickPin 2.0“, for example, or extended online catalogues with fast full-text and article search, the improved interior division configurator or the igus® expert system for calculating service life online. Visit our website and see for yourself!

Yours

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Title story

Moving wood intelligently

ReadyChain® systems save time and money

Significantly reduce assembly times, reduce processing rates: These are the economic requirements. High cycle times, tight bending radii: these are the technical ones. The pre-harnessed igus® energy chains for the stacking and storage systems made by Bargstedt Handlingsysteme GmbH meet all these requirements.

„During a visit to igus® in Cologne, I saw how complex designs in a wide range of batch sizes and travel can be realized“, reports Merten Hamman, Purchasing Manager at Bargstedt.

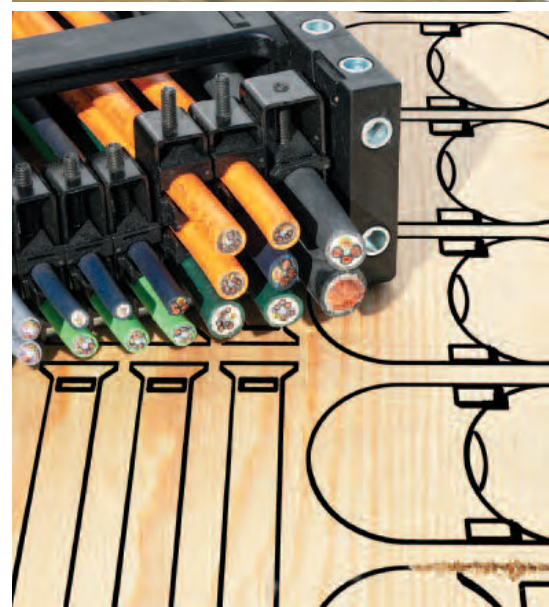
After intensive preparation, a valid standard was defined for Bargstedt. The pre-harnessed ReadyChain® energy chain systems are now being used in feeding and stacking systems for wooden and furniture parts. Travel distances are between 4 and 60 m, speeds from 60 to 290 m/min, accelerations move 10 to 12 m/s².

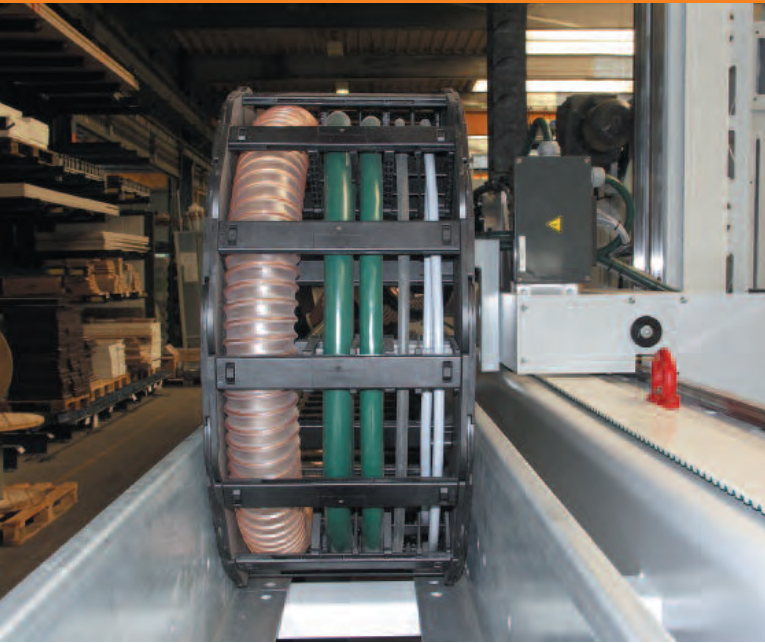
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E-Chains® for horizontal drive and vertical lifting axle (above)

ReadyChain® for feeding and stacking system for wooden and furniture parts (centre)

Projection and harnessing according to customer specification



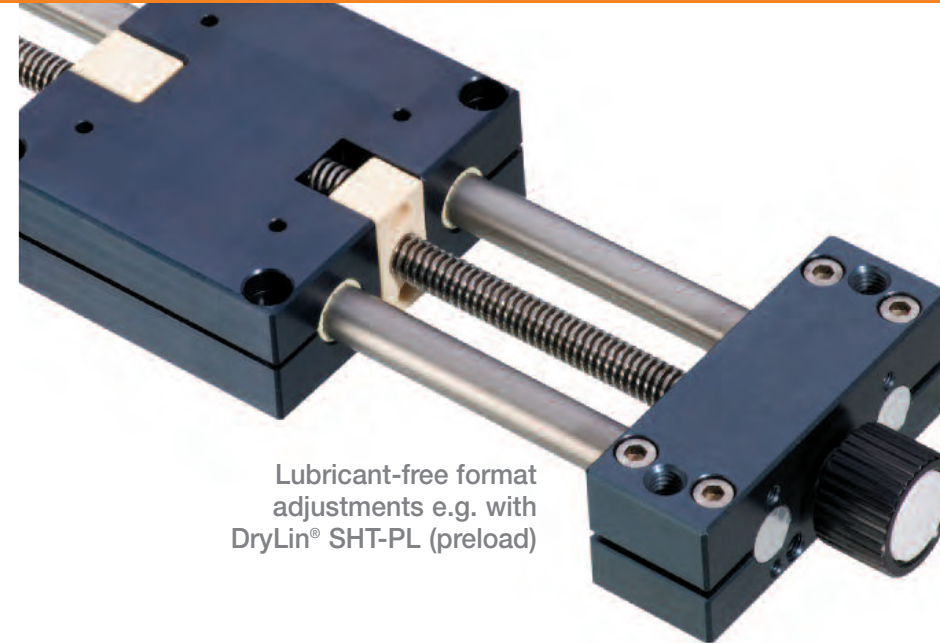


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Energy chain E4/4 light: light and stable

The igus® system E4/4 was chosen for the basic beam with carriage and the lifting movement. This E-Chain® has reduced side link wall thickness and a lighter bridge, which means lower weight and optimum ratio of inner to outer dimension. An interlocking rear handle ensures high side stability. The Chainflex® cables specially developed for use in E-Chains® also play a special role in the igus® system solutions. They remain stable even under maximum bending load without any „corkscrew“ effect or expensive wire breaks occurring.

E4/4 light, pre-harnessed with bend-resistant Chainflex® cables among others



Lubricant-free format adjustments e.g. with DryLin® SHT-PL (preload)

Lubricant-free format adjustments

Dry-running spindle linear tables are fitted with DryLin® linear gliding films and allow a wide range of different combinations of spindle, housing and shaft materials to be used.

DryLin® SHT-PL (preload) is predestined for precise positioning tasks, for example. It allows the manual setting of clearance. The reversal clearance is eliminated by spring pre-tension up to 50 N. Lifting lengths can be freely chosen. Crossbeams and cradles made of anodised aluminium guarantee low weight, high stability and corrosion resistance.

QuickPin 2.0 New: Online cable configuration

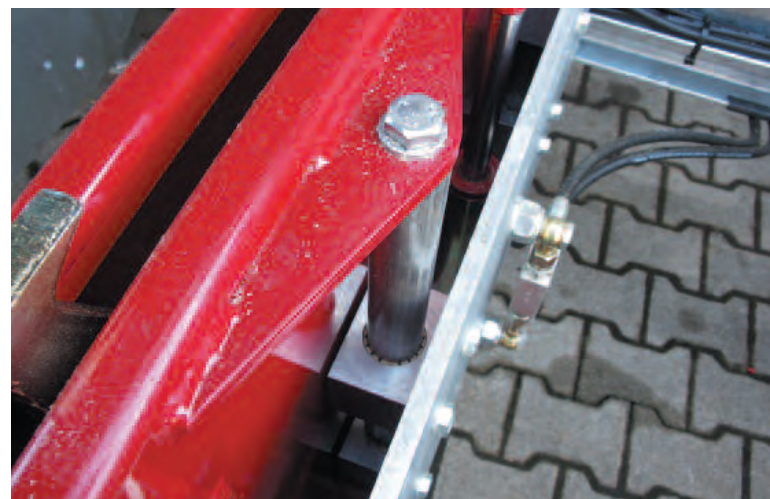
One mouse click is all you need: In only three minutes you can choose from more than 850 Chainflex® cables and 3,000 pin components, configure the cable online, inquire about the price (inc. copper surcharge), order directly and generate an ePLAN electric P8 macro free of charge for every cable. The new „QuickPin 2.0“ online pin-cable configurator is available in German and English. Demo video available at www.igus.de/quickpin-demo.



In practice 1 Maintenance-free iglidur® polymer bearings in sawmills

The Serra Maschinenbau sawmills have to work without a hitch, be easy to use, care for and service in conditions ranging from heat to frost. Lubricant-free plastic plain bearings and linear plain bearings from igus® provide a tried and trusted solution for wood treatment.

The machine elements are exposed to high impact loads and a vast quantity of wood splinters, sawdust and other dust. They are used wherever turning or displacement movements are required. Light, maintenance-free and insensitive to dirt, they replace ball bearings or lubricated steel-on-steel guides.



Lubricant-free DryLin® linear guide with plastic gliding film for angle stops

igidur® J polymer plain bearings are installed in the angle stops and the pre-cutter. They combine wear resistance at low to middle loads with excellent friction coefficients.

In the saw blade guide, the pre-harnessed DryLin® W guide system with replaceable gliding film is used. Impact, oscillations and vibrations are safely absorbed.

The going really gets tough with level compensation. For such applications, DryLin® linear plain bearings with iglidur® J gliding film have proved ideal.



Mobile sawmill



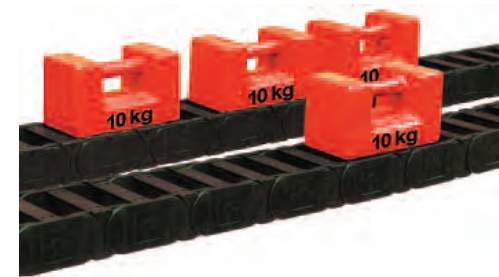
Polymer bearings as replacements for ball bearings or lubricated steel-on-steel guides



Insensitive to dirt: Guide system DryLin® W

E4.1 made of XXL 25 % more self-supporting length

Chips and wood dust increase wear over long travel. The new igus® XXL material for the E4.1 energy chain now allows self-supporting lengths to be increased by 25%. When this material is used, travel distances of up to 13 m can be achieved safely with the E-Chain® without channels and supports being necessary.



E4.1 made of XXL has at least the same self-supporting length as E4.1 despite 3 times the additional weight.



Automatic stacking
with E-Chain® and
Chainflex® cables

Energy tube protects
from fine dust (below)



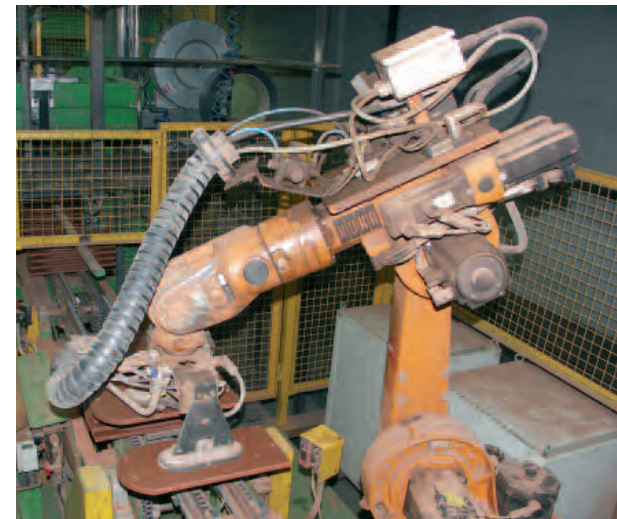
In practice 2 Chainflex® cables for 14-hour day

Repeated cable breaks were not unusual in the leather cutting machine at the ADA furniture factory. Since the introduction of bend-resistant Chainflex® motor and control cables (CF5, CF9), service lives have been significantly increased.

The servicing department now also relies on the igus® cable range, which includes 850 types especially for energy chains, for stationary saws, material cutting machines and stacking systems as well. „They have proved extremely resilient even during 14 hour-a-day operation“, says Johann Doler, Chief Engineer at ADA. The cables have a complex interior stranded several times. This bundle stranding guarantees that all the wires change the inner and outer radius of the bent cable several times the same distance apart. This means the stranding remains stable even under maximum bending loads.

Triflex® R 3D chip protection

igus® has developed the Triflex® R product family for robot applications and handling technology. The multi-dimensional moveable energy chain system has already proved its worth in the toughest of industrial environments. Alongside an „Easy-Version“ and particularly low-cost „Light“ version, Triflex® R is also available as a closed version (TRC) providing protection from wood dust and chips. This is available in six sizes (30, 40, 60, 70, 85 and 100 mm).



Palletizing robot with multi-dimensional moveable Triflex® R

Competition

Winter is coming. For cosy evenings at home, igus® has put together five packages of five detective stories (by Frank Schätzing, for example), all of which take place in Cologne! Simply answer the following question correctly and send your answer by mail to **wood-working@igus.de**. Closing date for entries is 26th November 2008. Don't forget to include your sender details!

What is the name of the bend-resistant cables made by igus® especially for energy chains?

Good luck!

