

COVER STORY

Fifty percent less assembly time for energy supply system

The high-performance storage and retrieval machine "viapal" from viastore systems lifts up to 2,000-kilo pallets. Complex enclosures of the power supply system are dispensed with. Instead, spring loaded plastic locks secure the energy chain®. This saves material and assembly costs!

Energy supply systems have to withstand, a wide range of temperatures, vibrations and high accelerations of the storage and retrieval machines. The "viapal", for example, reaches accelerations of up to 0.5 m/s² and a travel speed of 4 m/s. The energy chain® can easily swing outwards, especially during intense lateral accelerations. If it then strikes a metal frame or pallet, a chain breakage is inevitable. In order to prevent this, igus® has developed the "guidelok slimline (SL)" system. Spring loaded plastic locks keep the energy chain® safely in its track even on masts and towers of 40 meters and more.

➔ www.igus.eu/glsf-f_Movie



↓The core of the guidelok slimline consists of the new spring loaded plastic locks. When at rest the locks grip the chain, but in transit they press outward and release the chain.



↑The storage and retrieval machine "viapal" from viastore systems in an automated pallet storage system.

←Reliable and quiet: Two automatically actuated locks hold the chain in to the trough segments.

EDITORIAL



Christian Strauch

The dominant theme of the CeMAT 2011 was "Sustainability in Intra-logistics." The large storage and retrieval equipment manufacturers take it to mean increasing the energy efficiency and enhancing the performance – a key success factor given the rising commodity and energy prices.

A modern storage and retrieval machine should be working reliably day and night and as quietly as possible, especially if people are working nearby.

To face all these challenges, igus® offers a large energy supply kit, from which the customer can easily configure his supply system. igus® e.chain® solutions cover virtually all energy supply system requirements. With an overall daily travel of about 38,000 m, igus® e.chains® are probably the most popular way to convey energy and media flexibly and reliably. Summing up: Configured online in seconds, quickly delivered from stock and built for years of operation – with optional installation service and system warranty.

In this issue of material@igus.de, you will find exciting topics such as the new guidelok slimline "F", the new guidefast trough for crane girders or the P4.32 Rol E-Chain® and much more.

Happy reading!

Yours,
Christian Strauch

Industry Manager, Material Handling

GUIDELOK

Fast and safe

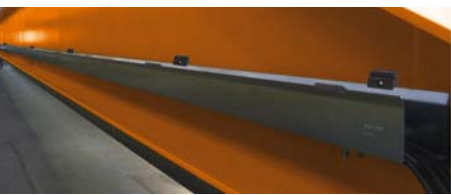
For the safe vertical guidance of e.chains®, igus® has re-engineered a proven product: guidelok slimline “F” for very fast systems. High speeds of 7 m/s are no longer a rarity for highly dynamic storage and retrieval systems. With the next generation igus® guidelok slimline “F”, the e.chains® are safely guided even at very high speeds; accelerations up to 10 m/s² are possible. The e.chain® doesn't need to be held in a trough any more. This eliminates full travel-length through parts. Weight is reduced and transportation costs are saved.

➔ www.igus.eu/gisl-f_Movie

FASTER PACE

New trough with 80 percent less assembly time

For the quick and easy installation of a trough on standard indoor cranes, igus® has the new “guidefast E2” in the range: It adapts to almost any standard crane girder and can be mounted directly on the side of the crane girder using weld-on bolts or screws. The guidefast E2 is part of the complete package for indoor cranes, consisting of the trough, the E2/000 e.chain®



and chainflex® cables. To facilitate the electrification, cables can be installed directly on the trough bracket.

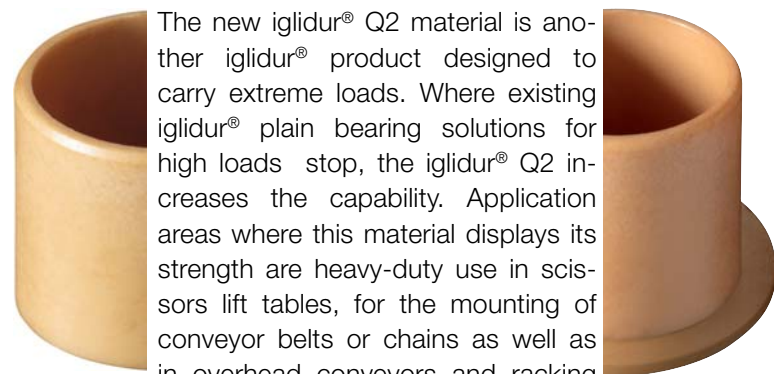
Moreover the pre-fabricated drilling patterns of the mounting brackets of the e.chains® facilitate easy assembly. The trough is made of galvanized steel or stainless steel (optional) and is also available as black powder-coated version. An aluminum version is being planned. Like all igus® products, the trough has been subjected to extensive tests for its strength and resistance to vibration and environmental impacts.

➔ www.igus.eu/guidefast



IGLIDUR® Q2

The strongest igus® bearing



The new iglidur® Q2 material is another iglidur® product designed to carry extreme loads. Where existing iglidur® plain bearing solutions for high loads stop, the iglidur® Q2 increases the capability. Application areas where this material displays its strength are heavy-duty use in scissors lift tables, for the mounting of conveyor belts or chains as well as in overhead conveyors and racking systems under extreme conditions.

➔ www.igus.eu/iglidurQ2



An application that calls for a strong plain bearing: iglidur® Q2 in the scissors lift table

„P4“ SYSTEM

The **light** rolling e.chain® – **57% energy savings**

Long travel distances and high speeds. These challenges must be reliably overcome by energy supply systems for indoor cranes. The quiet and highly abrasion-resistant “P4” e.chainsystem® has sufficient reserves for the fastest and the largest cranes currently being designed. For example, “P4.42” (42 mm inner height) for sophisticated crane applications: it easily copes with speeds up to 10 m/s, travels up to 800 m and fill weights up to 10 kg/m. The “P4.32” with 32 mm inner height and the new design is now not only lighter, but also more versatile: This solution allows high dynamics even in limited installation space and like all Rol E-Chains® of the P4 family, offers up to 57 percent energy savings compared to gliding applications due to special low-friction properties.



The P4.32 e.chain® supplies energy to a pallet truck in tobacco production.

➔ www.igus.eu/en/p4

INFORMATION

Everything for the **material handling**

igus® offers the right solution for many other applications in material handling. For example, e.chainsystems®, chainflex® special cables, guide troughs, connectors and other accessories offer a trouble-free supply here. To find out more, ask for our new flyer or visit our industry website.

➔ www.igus.eu/materialhandling



New material handling flyer ➔



ACCESSORIES

Compact, **durable** and versatile

When there is only little space available for the energy supply of storage and retrieval systems and indoor cranes, the igus® micro flizz® is the compact and versatile alternative to a busbar system. Microflizz consists of a small e.chain® protected from environmental influences and dirt by an aluminum profile. In addition to accommodating the power supply, the system offers further space for data and media cables too.

The special chain guide achieves added durability: The side wings of the chain provide reliable support in the channel, thus preventing friction between the upper and lower runs. The assembled system allows accelerations up to 50 m/s² and speeds up to 6 m/s.



Very compact: micro flizz® assembly line adjustment

➔ www.igus.eu/en/microflizz

VIDEOS

What an **e.chain®** can do



See in our videos what all can be done with e.chains® in material handling. Or you can discover the benefits of igus® products in the interviews with the igus® developers.

➔ www.igus.eu/e-chain/can

DELIVERY SERVICE

Delivered in hours ...



For many igus® products, the delivery time from igus® is from 24 hours. Assembling from 3 days. More information about the delivery service at ...

➔ www.igus.eu/24

INTERVIEW WITH DEMATIC AT THE CEMAT 2011

igus® at the CeMAT 2011 - a report

The **CeMAT 2011** was a resounding success for igus®: At the end of five days, the trade fair team could register about 20 percent more inquiries than in 2008 at the consistently well-attended 110 sq.m. stand. "This equals about an extra day at the fair and is an excellent indicator of the mood in the industry", says Christian Strauch, industry manager for material handling. The new guidelok slimline, guidefast E2 and the iglidur® Q2 bearing were particularly popular. "These and other products from igus® help customers to create faster, more powerful, durable and therefore more economical material flow solutions – all configured online in seconds and assembled in 2 to 4 days. We were able to convince many of our visitors of this," concludes Christian Strauch.

...material@igus.de: Mr. Cremer, would you introduce us briefly to your new Miniload system?

>>Holger Cremer: We have developed a storage and retrieval machine (SRM) of the highest performance class: 6 m/s travel speed, 3 m/s stroke speed, 4 m/s² average acceleration. At its peak, this is much higher. The special feature is the strong mast, for which we have already applied for a patent, and the highly flexible gripper.

...material@igus.de: Mr. Cavellius, you are the SRM team leader at DEMATIC. What made you select the new guidelok slimline "F"?

>>Jörg Cavellius: We were looking for a highly dynamic energy supply system with a very compact design for the lifting unit and lifting cage. We needed a very quiet and compact system that particularly prevented the damage to the chain. In recent years only busbar

...DEMATIC, a leading global provider of logistics automation solutions, presented its new highly dynamic storage and retrieval system "Miniload" at the CeMAT. Special feature: DEMATIC uses guidelok slimline "F" to reliably prevent the chain from striking at high speed and accelerations. material@igus.de spoke to Holger Cremer, Director R & D at DEMATIC and Jörg Cavellius, SRM team leader at DEMATIC on the use of igus® solutions in the new system.



Jörg Cavellius (left) and Holger Cremer of DEMATIC

the latest generation in the product range with significantly higher performance. A stable operation of the e.chain® is also necessary here damage must be prevented.

...material@igus.de: Mr. Cremer, Mr. Cavellius, we thank you for the interesting interview and wish you every success in further development.

or conductor line systems were available for SRMs with these dynamics. The guidelok has made the e.chain® attractive again. The lightweight and compact construction as well as the modular design enable a quick installation and easy replacement. The main argument is: No damage to the chain at higher speeds.

...material@igus.de: Mr. Cavellius, what would the future look like? In your view, after this positive experience, is there further potential for the use of guidelok slimline "F" in pallet racks or applications, for instance, in cold storage or even in lifters in the shuttle system?

>>Jörg Cavellius: The application is conceivable in pallet storage and retrieval machines, because there too we have

INTERVIEW ONLINE



For the full interview with Holger Cremer and Jörg Cavellius, visit ...

www.igus.eu/ceMAT2011/dematic



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