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Press-information

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item MB Building Kit System now also includes conveyor technology

Chain Drive concept

At the Motek show in Sinsheim, item Industrietechnik und Maschinenbau GmbH from Solingen, Germany, presented a completely new chain drive concept designed to add conveyor technology functionality to the tried-and-tested MB



Building Kit System. The particular feature of this chain drive is that the chain is completely enclosed within the system groove of the Line 8 aluminium profiles.

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By integrating the chain within the profile contour, the constructional space is used even more efficiently. This means that the drive components are not only protected against unauthorised and unintentional access but also mounted in an enclosed space to prevent the ingress of dirt and to reduce the effects of vibration.

The chain drive provides users with a range of conveyor options for materials handling:

- as a drive system in conjunction with chain-driven conveyor rollers
- as a chain transfer system for products and workpiece carriers in direct contact with the chain
- as a chain drive for with linear motion slides.

In all these applications, the chain transforms the rotary motion of the motor into a linear motion. Other applications are also possible that employ the chain drive to transmit rotary motion.

The decisive point about the system is that the basic construction of the item chain drive remains the same for all applications. Chain deflectors are attached to 80

mm high Line 8 profiles at the front. The profile grooves in which the chain is mounted are fitted with chain-guides made of extremely durable, wear-resistant plastic, to support the chain between deflectors. The deflectors are also fitted with tensioning mechanisms to enable the chain tension to be finely adjusted.



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Where the chain drive is used as a conveyor roller drive, the gearwheels of the rolls engage in the chain links from above. The rolls are simply inserted and locked in place in bolted-on bearing blocks and can later be removed for replacement or repair without removing the chain. An uninterrupted aluminium housing profile extends across all bearing blocks covers the bearing points and chainwheels and protects them against unauthorised or unintentional access and also allows the materials to be conveyed to be fed onto the roller path from the



side. Alternatively, a housing version with a side guide is available to enable lateral guidance.

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A further transfer method that can easily and effectively be implemented using this new item chain drive is direct chain transfer: In this case, the materials to be transported are placed on the chains and are transported by direct contact. This non-positive contact also allows for jams to accumulate and dissipate naturally. For use as a chain transfer, the chain is fed over end ramps that lead it out of the system groove and over a specially designed slide strip made of durable, wear resistant plastic. The slide strip is also available with a raised guide edge to ensure that the materials or the workpiece carriers being transported are kept on track.

The chain drive can also be used for driving linear axes. To this end, a chain carrier connects the linear slide with the chain. In conjunction with the many guides offered under the Dynamic Elements section of the item MB Building Kit System, extremely compact and yet sturdy linear axes can be constructed. Since this chain drive solution is concealed completely within the Profile Groove, the outer dimensions of the system remained unchanged, allowing the application designer even more freedom of choice than with conventional drive methods.

As one would expect, all the new System Components blend perfectly with the MB Building Kit System and can be combined in virtually any manner. The design of the components takes into consideration the well-known Line dimensions and care has been taken to ensure that existing accessories for materials handling can also be used during the construction of a chain drive.

Text and picture data are available for download in the internet :

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