

Lubrication-free adjustment: polymer rollers assist igus' hybrid linear system

Hybrid roller bearing with tribo-polymer sliders halves coefficient of friction in lateral position

In order to move doors, monitors or even panels, users rely on lateral installation of the linear systems. To enable the linear guides to absorb these lateral forces better, igus has now developed a new hybrid linear system. Two hybrid bearings provide low-friction adjustment with polymer rollers and tribo-polymer slide elements. Combined with an easily fit rail adapted to the new roller bearings, igus offers a cost-effective and visually appealing complete solution.

In the packaging industry, furniture technology or even in machine tools: drylin linear guides can be found wherever movement is required. On tribologically optimised liners, the linear carriages slide on the rail, ensuring precise and long-lasting adjustment. If a low driving force is required for manual adjustments, rollers are used in the bearing element. Especially for a lateral installation, the position of the rollers for the force absorption is crucial. As a solution for such applications, igus has now developed two new hybrid roller bearings, which offer smooth adjustment with low drive forces and maximum support at the same time. The WJRM-41-10 has two offset polymer rollers with optimised alignment for better force absorption and easier rolling. The hybrid roller bearing WJRM-31-10 with single roller is in turn the matching, supporting bearing on the opposite side. By using the two roller bearings, the user can minimise the coefficient of friction by half and increase the service life of the application. In both bearings, in addition to the rollers, there are sliding elements made of the low-friction tribo-polymer iglidur J. The lubrication-free and maintenance-free material is characterised primarily by its low coefficient of friction in dry operation. Both bearings can be positioned at the desired bearing clearance. These are very cost-effective if the bearings are produced in the zinc die-casting process.

Smooth adjustments with low-friction

Using a top plate, the two new roller bearings can be expanded to a linear carriage. To ensure that the bearings can also be used on the appropriate guide, igus has developed a low-profile hybrid roller rail. This has a special geometry optimised for the hybrid roller bearing. The rail has a simple design without visible holes and is able to attach from the back with sliding blocks. This makes the new rail in combination with the hybrid roller bearing ideal for lateral installation, for example in kitchen and furniture construction as well as in machine tools or in jig construction.

Caption:



Picture PM5419-1

Two new lubrication-free hybrid roller bearings allow for easy adjustment - for example of doors - in the side mounting position. (Source: igus GmbH)

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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 2018, igus generated a turnover of 748 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", "drylin", "dry-tech", "dryspin", "easy chain", "e-chain", "e-chain systems", "e-ketten", "e-kettensysteme", "e-skin", "flizz", "ibow", "igear", "iglidur", "igubal", "kineKIT", "manus", "motion plastics", "pikchain", "plastics for longer life", "readychain", "readycable", "ReBeL", "speedigus", "triflex", "roboLink", and "xiros" are protected by trademark laws in the Federal Republic of Germany and internationally, where applicable.