Polymer sliding elements for tough applications

DryLin R - maintenance-free linear technology for fence post manufacturers

The French company Clotex, based in Renage, manufactures fence posts for house builders. Lubricants may not be used in the production process since the air in the machine shop is extremely dusty. The rolling process results in the continuous production of dust, which is both abrasive and extremely fine. It would only take a minimum amount of lubricant to come into contact with the dust for a sticky mess to be produced. This would result in machine seizure and thus expensive and time-consuming maintenance work. This is why the company uses lubricant-free plastic bearings from igus.

Picture PM2905-01: igus GmbH, Cologne
Ejectors, guided on self-lubricating "DryLin R" bearings from igus.

Linear guide system DryLin R: self-lubricating, dirt-resistant

Romain Giroud, head of the technical department at Clotex: "In contrast to ball or roller guides, the linear guides from igus are self-lubricating and significantly more dirt-resistant, although they have the same dimensions." The same applies to plain bearings versus ball bearings, according to Giroud. For about four years now, Clotex has been using so-called "DryLin R" bearings from igus under arduous conditions. Giroud: "The bearings increase the service life of our machines. We need fewer spare parts and save lots of time in maintenance work." The igus bearings with high-performance polymer sliding elements "can be replaced much more easily than ball bearings." DryLin R linear bearings, comprising a metallic housing and an interlocking polymer insert can be used on all shaft materials.

Double the service life

The first Clotex machine to be fitted with igus bearings was a punching machine which puts holes in steel posts. With this application, the hole dies themselves are guided by the bearings. The capacity is 12,000 cycles per day at a speed of 1 m/s. Romain Giroud sums up the situation in a nutshell: "This means the DryLin R bearings have a service life twice as long as conventional bearing guides." This experience led Clotex to achieving ejector guidance through igus bearings on another machine, too. "We now intend to use lubricant-free plastic bearings as standard fittings for our complete machine shop - particularly for our robots," says Romain Giroud.

From the food industry to road building

As well as round guides, igus has other guiding systems in its range for even tougher applications, such as in the concrete and stone industry, for automotive applications (e.g. electrode holders), in the food industry (e.g. pasta on rails which quickly become sticky), for road building, in quarries or down mines. The range is always expanding: one of the latest additions is a version of DryLin T where the iglidur J sliding parts are mechanically fixed in place by the metal end plates.

Picture PM2905-04: igus GmbH, Cologne
Linear guide with high-performance polymer sliding element.

Picture PM2905-02: igus GmbH, Cologne
The Clotex machine shop in Renage: black abrasive dust everywhere.

Picture PM2905-03: igus GmbH, Cologne
"Fewer spare parts, time saved for maintenance" - Romain Giroud, head of the technical department of Clotex in Renage (France).

PRESS CONTACT

André Kluth
Corporate Communication Manager

igus GmbH
Spicher Str. 1a
D-51147 Köln
Tel. +49 (0) 22 03 / 96 49 - 611
Fax +49 (0) 22 03 / 96 49 - 631
akluth@igus.de
www.igus.de

DIN ISO 9001