

Lubrication-free, plastic-metal rod ends: for better hygiene and higher loads in the food sector

igubal stainless steel rod ends with iglidur A160 enable lubrication-free dry running with no risk of contamination

Constant relubrication of metal bearing points in the food industry costs time, money and increases the risk of contamination. Maintenance-free igubal spherical plain bearings from igus are an economical and safe alternative. Now igus has introduced a new variant for higher loads, equipped with a stainless steel housing, a self-lubricating polymer inner ring and a stainless steel ball. This makes it possible to convert applications with higher loads to future proof tribo (lubrication-free) technology.

Rod ends are an integral part of mechanical and plant engineering for the food industry. They are used everywhere from the filling line to the butcher's machinery to the packaging system, and they transmit dynamic forces in pivoting, tilting and turning movements. Rod end heads must be relubricated to guarantee low-friction movement between the sliding ring and the ball. This is a job that is not only time-consuming but increases the risk of contamination, because dirt and dust form unwanted deposits.

"To assist food processing company operations and at the same time improve hygiene in their moving applications, we have expanded our range of igubal rod ends," says igus UK Product Manager Dean Aylott. "The new plastic-metal hybrid part consists of a steel housing and ball, as well as an inner ring made of the FDA and EU 10/2011-compliant high-performance plastic iglidur A160."

Hygienic dry running thanks to microscopic solid lubricants

As with all iglidur plastics, the high-performance plastic iglidur A160 contains a solid lubricant that is released in minute quantities over time. It ensures low-friction dry running between the inner ring and the stainless steel ball. The absence of lubrication also significantly accelerates cleaning of the rod ends, because with no grease, dirt and dust have little chance of being deposited.

To increase food safety further, iglidur A160 is blue, a colour against which food residues and mould spores can be quickly detected during cleaning. In addition, the colour is easily seen in a food environment. "This high level of hygiene is also confirmed by the approval of the U.S. Food and Drug Administration (FDA), which follows one of the strictest hygiene guidelines in the world," says Aylott. "The same applies to compliance with EU directive 10/2011."

Clean, and very robust

The new igubal rod ends are both hygienic and robust, even in outdoor applications, providing a higher breaking force and stiffness compared to plastic. In addition, they are resistant to moisture, acids, alkalis and UV rays and are suitable for temperatures between -40°C and +90°C.

According to results in the igus test laboratory, the abrasion resistance of iglidur A160 is also 10 times better than that of polyamide, even with fast rotation of the shaft. "Users can therefore significantly increase the reliability of their systems with a small investment," says Dean Aylott. The new rod ends are available in sizes M6, M8, M10, M12, M16 and M20.

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Caption:



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The lubrication- and maintenance-free igubal rod head for higher load applications in the food industry consists of a housing and a ball dome made of stainless steel, as well as an inner ring made of the FDA and EU 10/2011-compliant high-performance plastic iglidur A160. (Source: igus GmbH)

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