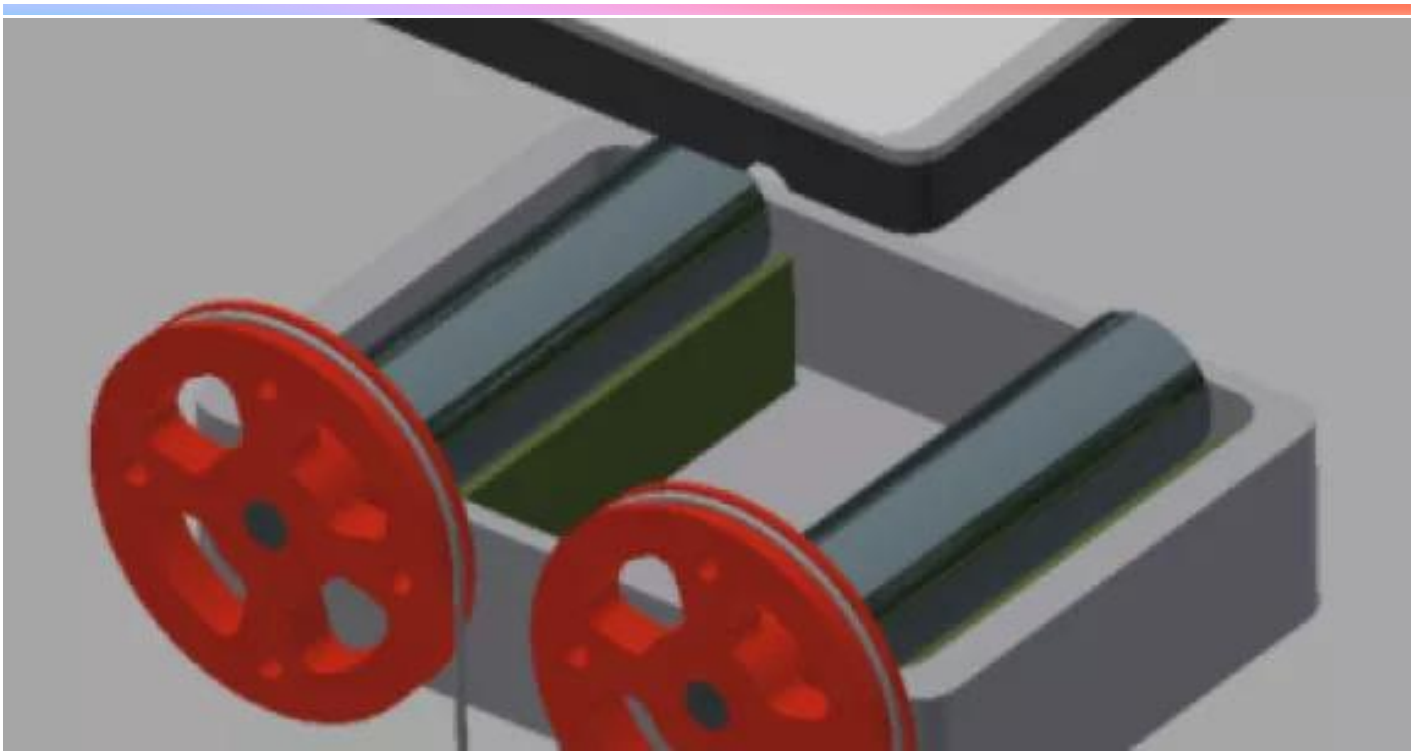


Reduced friction thanks to femtosecond surface technology

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Sirris conducts research into how new technologies can become meaningful in industrial applications. One of them is femtosecond laser technology. The effect of texturing on friction was shown using a demonstrator.

Today, femtosecond laser texturing reaches powers of a few 100 W and the first industrial applications, including in watches, are a fact, just as femtosecond lasers are used in cataract operations. The technology is especially interesting because of the clean finish of lasered structures.

Demonstrator

As part of the SurfaceScript COOCK project, Sirris built a demonstrator showing the effect of possible textures on friction behaviour. Two shafts (H8) in a bearing (H7) in contact with an oil bath (0W-16) are driven by equal weights. The shaft with the texture falls significantly faster, which shows that the friction has been reduced. The effect of this texture was first demonstrated on flat surfaces, then also on a curved surface. Sirris wants to stimulate the discussion about the use of the technology in industrial applications using such demonstrators.

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Two equal weights each drive a shaft enclosed in an oil bath and bearing. The right-hand shaft contains a surface texture that reduces friction.

Want to know more? Contact us.

This blog is written as part of the Surfacescript COOCK project.

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