Expanite replaces DLC Coatings with ExpaniteHard-Ti

By **Stainless Steel World Publisher** - August 30, 2021

Expanite replaces or supplements the widespread DLC coatings with its technology.

Diamond-like carbon or DLC coatings are currently used in many areas where excellent friction properties and good wear resistance are required on component surfaces. The DLC system has some weak points. The soft stainless steel as the carrier medium and the correspondingly high hardness gradient to the thin DLC layer promote the eggshell effect this might lead to a defect in the coating, and it will easily start peeling off.

Surface hardening of Expanite brings the solution using a gas-based diffusion process to store carbon and nitrogen deep in the component surface. This guarantees a better load-bearing capacity and efficiently counteracts the eggshell effect. In contrast to the applied DLC layer, the Expanite technology is a diffusion hardness layer that is coherent with the base material.

The Expanite technology, specially developed for corrosion-resistant materials, offers a solution for austenitic, martensitic, ferritic and duplex stainless steels as well as for expensive nickel-based alloys such as Inconel and Hastelloy. The new special process ExpaniteHard-Ti, which the Expanite team of experts in Denmark has developed to market maturity in recent years, is used for titanium materials.

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