

Press release

September 14, 2021

A smart lightweight chuck wins the »Thinking Lightweight Construction Award«.

The highly complex lightweight chuck made of carbon fiber-reinforced plastic [CFRP] with integrated sensor technology from the clamping device manufacturer Hainbuch received the Thinking Award in September. The Baden-Württemberg State Agency for Lightweight Construction awards innovative products or services in a monthly cycle in order to promote lightweight construction research and create an exchange platform. Hainbuch's Torok CKF IQ is a real lightweight and 70 percent lighter than its steel version. It performs various automatic measurements for a predictive maintenance strategy with the help of the integrated sophisticated sensor technology. The manufacturing process is monitored and documented by the sensors as part of condition monitoring.

The first IQ chuck from Hainbuch was introduced in 2007 and the first CFRP chuck in 2010. But the combination of lightweight construction, sensor technology and subsequent processing of the measured values is a sensation and the only one of its kind available on the market. More than ten years of expertise, a high level of vertical integration and extensive development work have gone into this development. It was worth it and the development is still not fully exploited. Thanks to its hybrid design, consisting of aluminum, CFRP and steel, it ensures reduced unit costs and a longer service life of the machine. This is made possible by the noticeably lower mass inertia, the damping properties and the high machining dynamics combined with low energy consumption.

Picture:

01_Hainbuch_chuck_Torok_CFK_IQ.jpg

The Torok CKF IQ lightweight chuck with integrated sensor technology.