

E-mobility with lightweight chassis: Precision steel specialist from thyssenkrupp develops weight-reduced tubular designs

E-mobility is increasingly gaining in importance. Reducing part weight plays a key part in this, as it allows increased efficiency and conserves resources. Lightweighting with steel provides ideal solutions. thyssenkrupp Precision Steel in Hohenlimburg has now developed a new part for the chassis of electric vehicles.

In a collaborative project thyssenkrupp's precision strip specialists have designed a super-light tubular structure using the high-strength steel HBS 800. This optimized chassis component uses less material, reducing part weight by over 34 percent. In addition, the innovative tubular part takes less time to manufacture and produces significantly less scrap. Moreover, it can be produced using conventional methods.

The new chassis concept also includes modern tubular stabilizers made from manganese-boron steel. This innovative solution allows weight savings of 45 percent. A homogeneous microstructure and very close thickness tolerances make these parts suitable for high-frequency welding. Wall thickness can be varied to allow a further weight reduction. These new steel lightweighting solutions are being manufactured by a processing specialist for the automotive industry. This collaborative development is to be used in a project for the Asian market, where a particularly long-life electric model is to be introduced.

Contact:

thyssenkrupp Steel Europe AG
Erik Walner, Head of Media Relations
T: +49 203 52 - 45130
erik.walner@thyssenkrupp.com
www.thyssenkrupp-steel.com
Company blog: <https://engineered.thyssenkrupp.com>