

How a combination of innovative technologies (Hot stamping) and the most advanced developments in virtual product design and manufacturing is leading to safer and lighter body structures?

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GESTAMP

Gestamp is a Tier 1 supplier of metal components for Body-in-white (BIW) parts, chassis parts and mechanisms. Since 2004, GESTAMP is massively investing in the hot stamping technology to become the market leader.

Hot stamping (i.e. press hardening) at approximately 900°C USIBOR® is an outstanding technology which enables carmakers to design always more complex parts with the highest resistance available (Ultimate Tensile Stress > 1500 MPa).

Thanks to this innovative technology steel is challenging aluminum not only in crashworthiness but also in weight saving. Growth on this technology is going faster and faster in all regions of the world.

During the process of press hardening, Gestamp is creating the steel characteristics inside the press (Yield Stress, Ultimate Tensile Strength and Elongation). One of the innovations developed by Gestamp is the creation of a complete family of steel grades from HT400 (similar to DP600), HT 550 (similar to CP/DP800), HT700 (similar to CP/DP1000) to HT1150® (UTS 1500 MPa) which was the historically the first steel grade created.

Making safer and lighter car implies to provide optimized solutions, this challenging target could only be met by combining the most advanced design solutions with virtual product validation and virtual manufacturing.

3-partner cooperation (Carmaker, ESI and Gestamp) is a key success factor to design safer and lighter car... at a reasonable cost.