



Cost Effective Forming of Lightweight Complex Structures

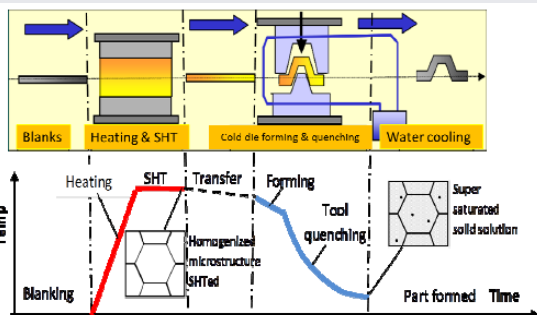
The Project

The **LoCoLite** project's aim is to establish production lines in Europe that manufacture components for lightweight complex-shaped body structures of automobiles, trains and aircrafts, which are significantly lighter and of comparable strength and stiffness to those currently available.

Technological Highlights

The Solution-Heat treatment, cold-die Forming & Quenching Heat Form Quenching (**HFQ**) process is a sheet material production process, which allows aluminium and other metals to be formed into complex geometries through the increased drawing depth, sharper bend radii and elimination of spring-back that can be achieved compared to traditional stamping processes.

The enhanced ductility allows for a range of components to be manufactured that would have previously been manufactured from slower or more material intensive manufacturing processes such as machining.



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Dissemination activities

Since the beginning of the LoCoLite project, an article has been published on the following journal:

- CBM (Confederation of British Metalforming) – ISSUE 2014 ISSN 1759-5975

<http://www.britishmetalforming.com/>

ITL is presenting LoCoLite at the Global Automotive Lightweight Materials summit on 23-24 April 2014

<http://www.global-automotive-lightweight-materials-2014.com/>

Previously, the technological highlights of HFQ have been presented in:

- Aluminium in Road Transport Conference, 5-6 Nov. 2013, Birmingham;

- Automotive Manufacturing Solutions, Sept.-Oct. 2013;

- 2013 Tools and Technologies for Processing Ultra High Strength Materials– 19-20 Sept. 2013 – Graz (Austria)

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 604240

Consortium

The **LoCoLite** consortium involves 15 companies and research institutes from eight European countries.

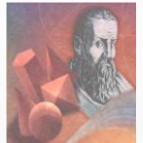
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