Schuler AG achieves production optimization of press lines with DELMIA

Schuler AG of Göppingen set a new standard in adaptability for press lines with their new equipment for the production of large car body panels. For the first time, production optimization was carried out with control and process simulation of press lines using DELMIA V5.

As the technological and global market leader in metalforming, Schuler supplies machines, production lines, dies, process know-how and services for the entire metalworking industry. Their clients include car manufacturers and their suppliers, as well as companies in the forging, household equipment and electrical industry. Schuler is also the market leader in metalworking technology and produces complete wind turbines. The company employs more than 5,000 people and is represented by its own facilities and sales offices in 40 nations around the world.

Schuler Presse GmbH and Co. KG develops and manufactures state-of-the-art mechanical press systems for customers in the automobile, supplier, electrical and household appliance industries. In 2009, the world’s first press line with BaroDirect technology and Crossbar Feeder automation began operation. This press line, which allows up to six presses, was developed for the production of large car body panels at the BMW GROUP.

The production process makes this one-of-a-kind facility unique

In order to make the entire forming process of the new press line more efficient, decision-makers at Schuler worked with equipment operator BMW GROUP during the development of the press line. Together, they explained opportunities for simulating production startup with molds and simulating the transfer of car body parts.

Efficiency calculations quickly revealed that the economic difference between optimizing equipment directly versus simulation was enormous. “Simulation reduces the cost of equipment programming by a factor of five, and increases production capacity by 5% to 10%,” explained Dietmar Schöllhammer, process development manager at Schuler Presse GmbH und Co. KG.

Schuler and the BMW GROUP had been using CATIA V5 for many years. DELMIA V5 had long been used for blank feeding at the Gemmingen location during robot simulation. In cooperation with BMW GROUP, the solution is now being used for press simulation in Göppingen. The catalyst was an appeal for users. In addition, the solution allows for simple implementation, I mean that our equipment is integrated solution once deployed. By implementing DELMIA V5, any necessary actions and production steps of a press line could now be planned and tested in context at a work station, resulting potentially in tremendous savings: simplification of processes, reduced costs, and minimization of error sources as well as faster completion.

Simple operation of DELMIA

According to Dietmar Schöllhammer, “We anticipate maximum acceptance of the integrated solution once deployed. By integration, I mean that our equipment is optimally integrated into the manufacturing process.” Existing employee skills in both areas is a considerable factor in the decision to implement the system.

Deployment of DELMIA V5 significantly simplifies simulation. Equipment functionality is displayed through the simulation user interface. Not only is the functionality of the system easy to understand, operation is equally simple. This is a great advantage for users. In addition, the solution allows for significantly improved cooperation between Schuler and the OEM during optimization of equipment operation. With the performance and elegant user interface, it is “simply a joy to work with,” Schöllhammer said.

For more information: www.schulergroup.com www.delmia.com

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