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PRESS RELEASE

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Constellium Singen again relies on aluminum extrusion technology from SMS group

EcoDraulic concept to reduce energy consumption

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The new 45-MN front-loading extrusion press from SMS group.

Constellium Singen GmbH has contracted SMS group to supply a 45-MN extrusion press for its largest works in Germany. Based on a long-lasting business relationship, Constellium Singen again counts on the technological expertise of SMS group.

The 45-MN aluminum extrusion press will be installed by SMS group in a newly established production hall at the Singen site. With the new plant, Constellium Singen will be able to increase its production capacity of high-quality aluminum profiles of most different cross-sectional geometries and also to respond to the growing demand by the automotive industry more flexibly. Commissioning is scheduled for summer 2020.

The 45-MN front-loading extrusion press will be built to SMS group's latest design and be equipped with the highly precise linear guidance system for all moving main components of the press, with servo drive technology for all auxiliary functions as well as the proven EcoDraulic concept to reduce energy consumption of the hydraulic pumps. Using the EcoDraulic system permits energy savings of up to ten percent to be achieved as compared to modern extrusion presses operating without that system. The intelligent start-stop automation deactivates all hydraulic pumps not required for the extrusion process.

Another highlight of the press will be the self-adjusting, moving discard shear which automatically adapts to the height of the tool package and ensures optimum and clean cuts. The scope of supply will include further crucial auxiliaries such as billet loader and dummy block lubrication system. An electrically operated linear billet loader will make sure the aluminum billets are safely and quickly fed to the press and, thanks to its telescopic gripper, will reduce non-productive time.

For the control and optimization of the production process, the new 45-MN extrusion press will be equipped with the most modern soft- and hardware

package. The smart press control system PICOS.NET (Process Information and Control System) visualizes and coordinates the control of the individual plant areas and provides an array of further useful functions, for example billet length optimization, billet recording as well as fault diagnosis. The process software CADEX (Computer Aided Direct Extrusion) serves for the optimization of the extrusion process. It simulates the process and provides best possible extrusion parameters for isothermal and isobaric extruding. The result is an improvement in product quality at optimum utilization of the press force.

SMS group is a group of companies internationally active in plant construction and mechanical engineering for the steel and nonferrous metals industry. It has some 14,000 employees who generate worldwide sales of more than EUR 2.8 billion. The sole owner of the holding company SMS GmbH is the Familie Weiss Foundation.