



Automobiles of the future comprising aluminum products from Tyrol



Thoni group, headquartered in Telfs, Austria, has placed an order with SMS group covering a press line for the extrusion of aluminum. The line includes a 55-MN front-loading extrusion press to process billets that have a maximum diameter of 12 inches (304.8 mm) and a maximum length of 1,600 millimeters.

This extrusion press is already the fifth one SMS is going to install for Thoni. The extrusion press line is to be established in a new works at the recently developed location at Pfaffenhofen and will produce profiles of aluminum and aluminum alloys for application in the automotive and other markets.

"From the end of 2019, the new line will produce about 8,000 tons per year of high-quality aluminum profiles for the European automotive industry. Through subsequent processing we will refine these products ready for installation," says Helmut Thoni, CEO and shareholder of Thöni group.

To satisfy its demanding customer base, Thoni group has invested in most advanced extrusion press technology. Billet heating will be done in a patented induction furnace, a combination of induction furnaces from IAS, a subsidiary of SMS group, and a gas-fired furnace from Extrutech GmbH. Aluminum bars will be stored in a warehouse, then heated to approx. 480 °C in an inline furnace, sawed to a maximum length

of 1,600 millimeters and transported to the billet loader.

The 55-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, servo drive technology for all auxiliary functions as well as the proven EcoDraulic concept to reduce energy consumption. In addition, the press will have a modular process control system, part of which will be CADEX/3 (Computer Aided Direct Extrusion) for isothermal and isobaric extruding. The MIDIS (Management Information Diagnostic Indication System) technology package will allow for the administration of all product-relevant data. An IBA measuring and analyzing system integrated into the control system will provide the opportunity of remote diagnosis.

Directly downstream the extrusion press, an advanced runout

will be installed by OMAV, another company SMS group is holding a stake in. Two high-performance cooling systems using spray water and air will cool the extruded profiles from an outlet temperature of about 520 °C down to approx. 100 °C. A special challenge here is to adapt the cooling rates to the product extruded in order to prevent profile warping. All cooling parameters will be recorded and managed by MIDIS. This makes sure identical material properties such as strengths can be reproduced in follow-up orders – a must for the automotive industry. One double puller, one flying saw, one stretcher, one final cutting saw and an automation system complete the runout area.

"With this state-of-the-art extrusion press line from SMS group we are setting the course for the growing demand for aluminum components.

We have devised the new works for possible expansion by further extrusion press lines right from the start," supplements Helmut Thöni. Commissioning is scheduled to take place in summer 2019. Extrusion of the first billet is planned for July 15, 2019. Thöni's future works at Pfaffenhofen where the new extrusion press from SMS group will be installed. ■

Rio Tinto update on Simandou

The non-binding heads of agreement, originally signed on 28 October 2016, for Chinalco to acquire Rio Tinto's entire interest in the Simandou iron ore project in Guinea has lapsed. Rio Tinto and Chinalco, who respectively own 45.05 per cent and 39.95 per cent of Simandou, will continue to work with the Government of Guinea to explore other options to realise value from the world-class Simandou iron ore deposit. The Government of Guinea owns a 15 per cent stake in the project according to a press release. ■