

SIDERFORGEROSSI GROUP: INDUSTRY 4.0 PROJECT

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Integrating Industry 4.0 solutions in the production cycle for rolled rings of up to 6 m in diameter

Siderforgerossi recently began a partnership with Rina Consulting - Centro Sviluppo Materiali in Rome to monitor its heating processes, hot working/forging, heat treating and department checks associated with automatic size detection and thermography. This is all being done thanks to digitization of the data from every single process.



In our field, this is how we are putting into practice the frequently discussed “Italian Industry 4.0 Project”, i.e. the new industrial automation trend that is introducing new monitoring technologies and thus laying solid foundations for the subsequent fine-tuning of

production processes, improving product quality and consequently the productivity of facilities.

The engineers Fernando Menchetti, Alessio Ventura and Sandro Notargiacomo from Rina Consulting are working alongside Lorenzo Facci and Matteo Login from our Research and Development department on this strategic project for Siderforgerossi and striving to achieve maximum quality, innovation, sustainability and safety in the production processes, plants and management systems.



At the same time, a second project has begun with the specific goal of improving and optimizing the heating processes for hot forging: this will be the main focus of the work done by ASTARTE, which has been charged with studying the heating procedures in depth, honing them and optimizing them.



Our technical experts Giordano Camicia and Matteo Longin (who are respectively the heads of the Siderforgerossi Quality Assurance and Research and Development departments) will work alongside the engineer Andrea Meleddù (an external expert in the field) and examine thermophysical processes

associated with heating in order to develop a mathematical simulation model using Finite Element Analysis (FEA). This computer-based numerical technique is widely utilized in engineering simulation analyses of complex process.

In the 21st century, Siderforgerossi has fully embraced the fourth industrial revolution, which is based on using data to create value. The future lies in fully automated and interconnected industrial production, with a number of significant changes in production approaches.