

METAL HEAT TREATMENT FACILITY

Below is a description of the intervention carried out with the Sustainable Investment 4.0 Contribution

DESCRIPTION

The investment project concerns a new 4.0 belt line for quenching, casehardening and carbonitriding of production capacity 750Kg/h equipped with:

- First washing machine - with the purpose of cleaning the parts of the impurities from the previous processing. Such a washing machine also integrates a dephosphating station, which is important to improve the quality of the product.
- Casehardening, carbonitriding and tempering furnace - allows the material to be transformed to obtain the first level of hardness.
- Quenching oil tank - with the fast temperature reduction, the material reaches the first level of hardness (quenching).
- Second washing machine - needed to clean the material from the oil.
- Tempering furnace - furnace at lower temperatures than the previous one that is used to bring the product to the required degree of hardness.
- Final tunnel-controlled cooling of the parts.
- Burnishing tank - additional treatment required for some products.

OBJECTIVES

The objectives expected from this project are:

- Make Colombo Special Fasteners S.r.l. an autonomous company on heat treatment field, previously outsourced to external subcontractors. Furnace of carburizing, carbonitriding and tempering - allows the material to reach the first level of hardness.
- Reduce finishing time in the production cycle resulting in improved quality and customer service and higher margins on the product.
- Integrate the new plant to the company's existing IoT network for other machinery.

RESULTS

The integration of the new heat treatment plant to the company's IoT network will enable to reduce downtime between processing cycles, operating not necessarily with the presence of permanent staff, even during night hours.

The implementation of this project will therefore enable to:

- Increase competitiveness and improve market positioning through a wider range of services with faster timelines. Reduce the production finishing time, improve quality and customer service and higher marginality on the product.
- Improve the quality of each individual product.
- Reduce the unit cost of developing each part, resulting in higher profit margins.
- Increase turnover, especially that coming from the automotive field.



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**COLOMBO SPECIAL FASTENERS S.R.L. – Implementazione
Dotazione Tecnologica 4.0**

Il progetto prevede l'installazione di un impianto completo per il trattamento termico dei metalli in grado di internalizzare completamente il trattamento di tutti i prodotti che la società produce

ASSE VI – Priorità di investimento 13i – Azione RA3.1

«BENE FINANZIATO NELL'AMBITO DELLA RISPOSTA DELL'UNIONE ALLA PANDEMIA DI COVID-19»

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