

Bachelor thesis: Analysis and conception of solutions for effective exhaust air temperature maintenance through chimney

About Us:

Vesuvius is a global provider of products, services and technologies for demanding high-temperature industrial applications. Our solutions are customized. It is our goal to enable our customers with innovative solutions to increase their productivity and their quality. Through our global network of production, research and service, we can offer world-class technology and services everywhere. Our business model is based on a good balance between the use of local service teams on the one hand and the central development of technologies and processes on the other.

Our Production facility in Mülheim a.d. Ruhr focuses on the production of fine and granulated casting powders for the Iron and Steel industry and cored wire.

What we are offering:

We are offering, starting from Q2/2019 a bachelor thesis with the Subject of Analysis and conception of solutions for effective exhaust air temperature maintenance through chimneys. You will be completing the thesis work at our Production facility in Mülheim.

What we require (thesis description):

To increase our production capacity, a new chimney has been planned to be constructed next to a spray drying production hall. This new chimney would be located outside the Production hall. A Spray drying production hall consists of two spray towers. The exhaust gases from each of the spray towers will be conveyed to the proposed chimney by means of pipes. Since these exhaust gases contain moisture, it is necessary that a higher temperature is maintained by exhaust gases within the flow pipes leading to the chimney to prevent condensation. Due to the location of both the spray towers within the halls, this must be investigated.

Whom we are looking for:

We are looking for competent, smart and enthusiastic individuals capable of analyzing the situation and to come up with a feasible solution. We have a clear goal and we count on results. Individuals with a systematic approach towards work and determination constantly interests us.

What we offer:

We offer the opportunity to work and gain insights into the overall functioning of our facility. The prospective student will be given the opportunity to work in each of our production facilities during the bachelor thesis, to get a better understanding of our production processes. During your time spent at our facility, you will have the total freedom to formulate a work plan and to work accordingly. You will receive support for your thesis work from across the departments at our production facility.

If you are interested please apply to Mr. Poelman via e-mail (marcel.poelman@vesuvius.com).

If you have any questions, we can be reached via e-mail or by telephone 0208/4346643.

Bachelor thesis: Energy Optimization of spray drying process

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Our Production facility in Mülheim a.d. Ruhr focuses on the production of fine and granulated casting powders for the Iron and Steel industry and cored wire.

What we are offering:

We are offering, starting Q2/2019 or later, bachelor thesis with the Subject of energy optimization of the spray drying process. You will be completing the thesis work at our Production facility in Mülheim.

What we require (thesis description):

Energy optimization is a key factor in the processes for which we supply solutions. Along with providing energy efficient solutions to our customers, we also strive to constantly improve our processes and thereby reduce the energy consumption due to production in our plants. Reducing energy consumption is part of our objectives mentioned in our Environmental policy.

The spray drying process at our production plant is driven by the burner, which uses LNG (liquefied natural gas) as the fuel. As an initial step, we are researching ways to reduce the overall LNG consumed by each of our burners. Additionally, we are also looking forward for ideas to manage energy efficiently throughout the production processes and thereby reducing energy waste.

Whom we are looking for:

We are looking for competent, smart and enthusiastic individuals capable of analyzing the situation and proposing potential ideas that can be developed into a feasible project.

What we offer:

We offer the opportunity to work and gain insights into the overall functioning of our facility. The prospective student will be given the opportunity to work in each of our production facilities during the bachelor thesis, to get a better understanding of our production processes. During your time spent at our facility, you will have the total freedom to formulate a work plan and to work accordingly. You will receive support for your thesis work from across the departments at our production facility.

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