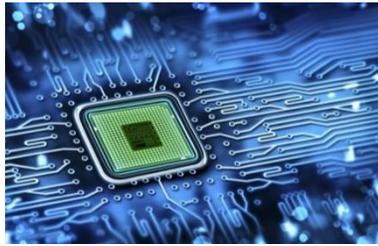




PASSION. PRECISION. PURITY.



MASTER THESIS

Correlation of the Sealing Process to the Performance Properties of Hard Anodic Surfaces

Are you looking for an opportunity to write your thesis in an industrial environment or obtain valuable industry experience, during or after your technical education? Here is one of many interesting topics we have on offer. We are also very open to your own ideas in order to create a matching opportunity for you at VAT.

Innovation has always been the driving force at VAT since the company was founded over 50 years ago. This has made us the world leader in vacuum valves and vacuum sealing technology. This pioneering spirit motivates us daily to meet our customers' requirements with enthusiasm. Together with our employees we stand for passion, innovation and quality. VAT is headquartered in Haag (Switzerland) and employs approximately 2 000 people worldwide. It has production centers in Haag (Switzerland), Penang (Malaysia) and Arad (Romania) as well as a production facility in Xinwu (Taiwan). With our customers mainly being situated in the United States and Asia, this provides a great opportunity to start an international career.

What you will explore:

VAT uses hard anodizing processes when high chemical resistance, abrasion resistance or electrical insulation is required. A final process step of the hard anodizing is sealing in boiling water where alumina is transformed in Boehmite and porosity is reduced drastically. Process parameters such as temperature, time, water quality and others show significant influence on the sealing quality. Target of this master thesis is to find the correlations of the sealing parameters to the properties of the hard anodized layer and to identify an optimized set of parameters. We offer practical experience in the semiconductor industry and supervision and support by experts in the related topics. The content and scope of this thesis may be discussed and defined in further detail.

What you will need:

This is a master thesis for students of mechanical engineering, chemical engineering or materials science. Independent and exact working method is essential for the success of this work. As some suppliers are located in Asia good skills in English language are required.

Are You Ready for the Challenge?

Then we look forward to receiving your **electronic application sent to Robert Spasov**.

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