



## MASTER THESIS

# Influence of Polishing Process on the Performance Properties of Hard Anodic Coatings

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 anodic coatings for parts with advanced requirements regarding corrosion resistance, electrical insulation and wear resistance. However, the leak rate suffers as compared to uncoated aluminum. One approach is to polish the surface after the hard anodizing process. It is most likely that this will affect other properties of the coating. The target of this thesis is to correlate the parameters of the polishing process to the properties of the hard anodic coatings in order to optimize the anodizing and the polishing process. 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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