



## BACHELOR THESIS

# Magnetic Guiding Elements in Vacuum for Large Transfer Valves

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:*

Currently the Transfer Valves in the Display/Solar market are pneumatic or mechanical operated systems. The lateral guide components are designed as roller guides with corresponding particle and wear behaviour. The new OLED technology has higher demands on the production equipment regarding particle generation and durability.

Your responsibility will cover the entire innovation process, starting with the collection of market data, definition & development of magnetic guiding solutions with our engineering, defining and evaluating concepts, building a prototype and finally testing the vacuum performance of the newly developed solution in the valve.

- Product Development
  - Market analysis, value proposition, evaluation and selection (vacuum suitability, market availability, costs, ..)
- Prototype Evaluation
  - Testing on functional sample and/or prototype valves (performance, long-term functionality, particle generation, ..)
- Industrialization
  - Design optimization based on test results & with regard to series production (platform integration, easy assembly, ..)

### *What you will need:*

- Good knowledge in mechanical engineering / mechanical system understanding
- Innovative & strong holistic thinking
- Ability in project planning and execution

### **Are You Ready for the Challenge?**

Then we look forward to receiving your **electronic application sent to Michael Luidold.**

E-Mail: [m.luidold@vat.ch](mailto:m.luidold@vat.ch)

Telephone Number: 081 772 47 03