

Master Thesis – Protection of manufactured parts to avoid handling damages (30 credits/20 weeks – 2 student[s])

About us

GKN Aerospace is the world's leading multi-technology tier 1 aerospace supplier. With 33 manufacturing locations in 12 countries, we serve over 90% of the world's aircraft and engine manufacturers. We design and manufacture innovative smart aerospace systems and components. Our technologies are used in aircraft ranging from the most used civil aircraft to the world's advanced 5th generation fighter aircraft and the Ariane orbital rockets used by ESA.

Project Background

In a business with very tight product requirements in general and where rotors in the engine has the toughest requirement of all, the cost of poor quality is significant when parts are not manufactured to the requirements. In general, dimensional deviations are more straight forward and can be handled and resolved in an efficient way. On the other hand, deviations caused by handling damage, such as nicks, dents and scratches are more difficult to both define and make calculations on to salvage and are also much more difficult to identify how and where they occurred. The Cost of Poor Quality associated with handling damage is about 50% of the total CoPQ.

Assignment Description

- Investigate different ways to protect hardware, to avoid handling damages. Could be different technical solutions to protect the parts during processing, and to protect parts during movement between processes.
 - Benchmark other industries
 - Research of available technologies
 - Concept generation based on a requirement list
 - Concept selection based on selection criteria
 - Preliminary design of selected concept
 - Incorporation of a prototype

Qualifications

- Pursuing a master's degree in Mechanical Engineering or a similar field.
- Interest in conceptual design
- Working in a model based software

Apply by

Send your resume and cover letter to Viktor Andersson, Manufacturing Engineering Manager Rotatives, <mailto:Viktor.Andersson@gknaerospace.com>

Last date for application: 2026-03-30

