

## Internship Assignment

<b>Company</b>	: GKN Fokker Aerostructures
<b>Location</b>	: Hoogeveen
<b>Department</b>	: Materials & Processes
<b>Contact person</b>	: Mark Wesseling
<b>Education</b>	: B.Sc. (HBO: 3 <sup>rd</sup> / 4 <sup>th</sup> year)
<b>Start date</b>	: February 2020
<b>Duration of assignment</b>	: 3-5 months

### GKN Fokker Aerostructures B.V.

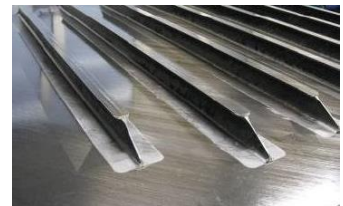
GKN Fokker Aerostructures designs, develops and manufactures advanced structural components, such as tails, wing and fuselage parts for the aircraft and space industry worldwide. The combination of creativity, innovation, technical knowledge and the experience in the aerospace industry makes that GKN Fokker Aerostructures can offer state-of-the-art solutions to customers like Boeing, Lockheed Martin, Cessna, Airbus and Gulfstream.

GKN Fokker Aerostructures is a strategic unit of GKN Aerospace and has locations in Papendrecht and Hoogeveen, Romania, the USA and Mexico. In total, these locations employ around 2 000 people.

### Department Materials & Processes

The department Materials & Processes is responsible for:

- Qualification of materials and (manufacturing) processes to ensure airworthy aerospace components,
- The definition, assurance and maintenance of material and process specifications as optimal boundaries for the production process,
- Assessment of deviations in materials and processes,
- Focal point for thorough understanding and knowledge on materials and processes in R&D-projects.



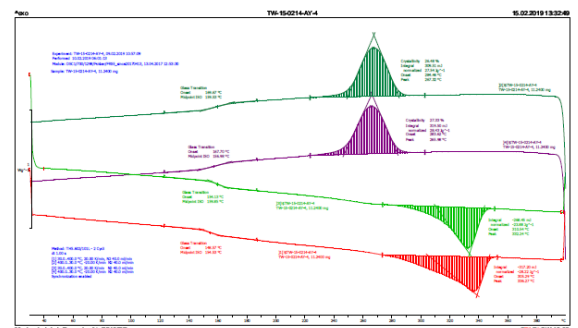
### Internship assignment

GKN Fokker is globally acting on the forefront of designing and manufacturing of advanced structural components made from thermoplastic composite materials. We develop new technologies such as Out-of-Autoclave consolidation, conduction welding and co-consolidation of butt joint stiffeners (see picture ↑). By applying these processes, degradation of the material is slowly occurring due to the thermal load of these manufacturing processes.

Performing of DSC (Differential Scanning Calorimetry) tests to determine whether the properties of the thermoplastic material (so called 'engineering plastics') are changed due to applied manufacturing processes is therefore of utmost importance.

Subjects / goals of the assignment:

- Continuous improvement of calibration procedure.
- Testing of influence of sample mass on test results of C/PEKK (or other) materials.
- Evaluate required polymer mass for determination of polymer properties with respect to device accuracy and international test specifications.
- Writing of an internal test specification for carrying out DSC tests of thermoplastic materials.



Within a previous assignment, maintenance and calibration procedures for our DSC apparatus have been determined / laid down and evaluated.

The foundations are there, but are you the student with knowledge of polymers that will help us transform our DSC apparatus and procedures in a reliable / research tool?



### **Your profile**

Our ideal candidate is a student with interests in thermoplastic (composite) materials. You enjoy a nice balance between pragmatic solutions and theoretical foundations and are capable of writing a clear report in correct explicit English.

### **Our offer**

An innovative and international environment that uses state-of-the-art technologies in an organization that has a rich history in the aerospace industry. Our organization is passionate for technology and our employees are rightly proud of the advanced technological products that are being developed and manufactured.

You have the chance to be part of our team in our day-to-day activities that are focused on developing and reporting knowledge for future products.

GKN Fokker offers internship allowance and –when applicable– rent allowance.

### **Interested?**

Do you want to know more?

Get in touch with Mark Wesseling (mark.wesseling@fokker.com, 0528-285322).

For more information on GKN Fokker Aerostructures, you can also visit [www.fokker.com/company](http://www.fokker.com/company) and/or [www.gknaerospace.com/en/our-solutions/aerostructures](http://www.gknaerospace.com/en/our-solutions/aerostructures).

Do you want to apply for this assignment?

Send your resume and motivational letter; we will be happy to get in touch with you!