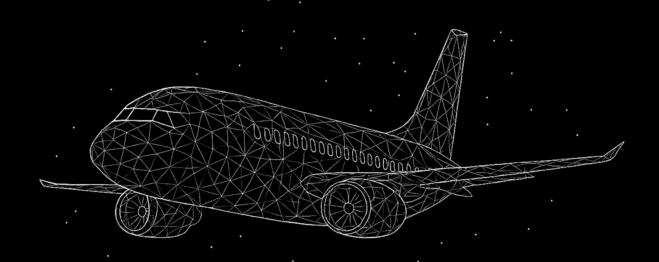


PFE BOOK

PURSUIT AEROSPACE TUNISIA



ALWAYS PURSUING BETTER





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ABOUT US

Pursuit Aerospace is a global manufacturer of complex aircraft engine components that are developed through highly integrated processes.

Our exceptional quality is driven by a deep investment in and the daily practice of continually improving our people, processes, and products.

Pursuit Aerospace's industry-leading, skilled and dedicated engineers work with your team to optimize blueprint tolerances for efficient manufacturing process, ensuring parts perform as intended. Your complete in-house solution, Pursuit Aerospace's Full-service capabilities deliver a trusted supply chain dedicated to meeting your expectations.

Pursuit Aerospace is diversely located over the globe with 21 operation centers in 7 U.S. states & 4 countries.

Our global footprint and extensive list of capabilities provides us a vertically integrated advantage to drive down cost and speed up delivery schedules.





COMPANY KEY PRODUCTS

FAN

Blisks

Structural OGVs

Solid Blades

Hollow Blades

Leading

Edges/Sheaths

MACHINED COMPONENTS

Seals Brackets

Rings Clevises

Bearing Housing

Lever Arms

COMPRESSOR

Blades

IBRs/Blisks

Impellers

Vanes

Stator Segments

FORGINGS

Blades

Vanes

Disks

Impellers

Engine Mounts

Structural Components

Structural Guide Vanes

COMBUSTOR & TURBINE

Blades

Vanes

Axial Diffusers

Radial Diffusers

Swirlers

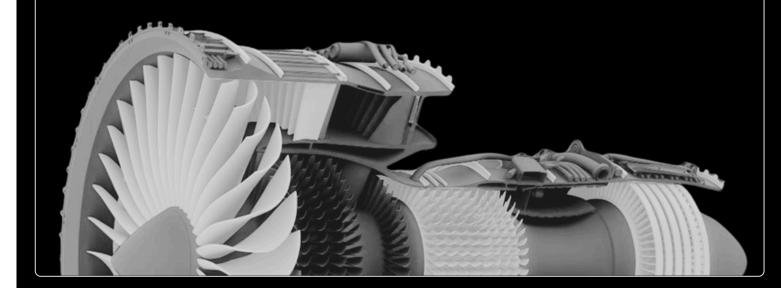
ACCESSORIES

Ducts & Tubes

Stampings & Brackets

Sheet Metal Fabrication

Torque Box





PURSUIT AEROSPACE TUNISIA

Pursuit Aerospace has been operating in Tunisia for over 20 years, building a strong legacy of growth and expertise in the aerospace industry.

The company began as **P&K Tunisia** in 2001, followed by the establishment of **Eurocast** in 2004.

Through strategic acquisitions, including **Paradigm Precision** in 2007 and **TurboCombustor** in 2011, Pursuit Aerospace continued to expand, joining the **Carlyle Group** in 2012.

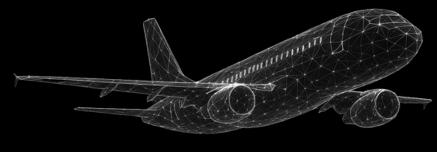
In 2023, a merger with CD&R and GB officially formed Pursuit Aerospace, solidfying its position as a leading provider of advanced aerospace solutions.

Pursuit Aerospace is recognized for its expertise in developing materials and components that address critical wear, heat, and corrosion challenges in aerospace applications, supported by numerous certifications and industry approvals.



Pursuit

MAIN CUSTOMERS









Pratt & Whitney







UNISON
a GE Aerospace company





PURPOSE, VISION AND VALUES

Purpose

Vision

At Pursuit, we strive to connect our people, process, and products to create meaningful outcomes

Become the best aero engine component manufacturer in the world through a relentless focus on Kaizen

Pursuit Core Values

Service, Curiosity, Openness, Process, Excellence

Service

Puts our people first

Creates an environment where people

can do their best

Proactively eliminates obstacles

Acts as a collaborative team player

Excellence

Sets ambitious goals

Holds self and others to the highest standards

Strives for quality in everything we do Sets clear priorities for the team

Curiosity

Demonstrates humility

Challenges the status quo

Is eager to learn

Fosters a culture of learning from

failures

Process

Follows and promotes standard work Implements mistake-proof solutions Promotes best practice sharing and adoption

Embraces Kaizen culture

Openness

Does the right thing even when difficult Communicates transparently

Actively seeks and embraces feedback

Fosters an environment of trust





Hello, I'm Seryne, graduated from ENSIT in Mechanical and Production Engineering, I had the privilege of completing my internship at Pursuit Aerospace Tunisia, an experience that was both unique and highly enriching.

What makes Pursuit particularly exceptional, and difficult to compare to any other company, is its hands-on and interactive approach to learning through workshops. These workshops allow for the direct application of theoretical knowledge and encourage exchange and collaboration among team members.

Pursuit offers a dynamic work environment, where the youth and open-mindedness of its employees create a stimulating and motivating atmosphere. The company is in constant development, and every day represents an opportunity to learn and improve one's skills.

I enjoyed this experience so much that, when the opportunity arose, I chose to continue working at Pursuit, further developing my skills, adaptability, and professional mindset in a challenging yet inspiring environment.



Seryne Guetif

Hello, as a graduate of ENIB, my internship at Pursuit Aerospace within the KPO/Kaizen department was one of the most enriching experiences of my academic and professional journey. It offered me a unique opportunity to explore the principles of continuous improvement and operational excellence in a highly demanding and innovative industrial environment.

Throughout my internship, I had the privilege of contributing to various Kaizen projects aimed at optimizing production processes and improving efficiency. These projects not only allowed me to strengthen my analytical and problem-solving skills but also helped me understand the importance of teamwork and data-driven decision-making in achieving sustainable performance.

This internship confirmed my strong desire to pursue a career in the aerospace industry and more specifically within Pursuit Aerospace. The company's commitment to innovation, quality, and continuous improvement perfectly aligns with my own professional ambitions.



Ines Msadaa



Hello, from the very beginning, the interview for my final-year internship at Pursuit Aerospace was truly one of a kind dynamic, inspiring, and full of positive energy. It marked the start of an incredible journey into the world of ceramic materials and investment casting for aerospace applications. As an ENSIT engineering student, I had the chance to collaborate with a talented and supportive team, exploring innovative ways to enhance the performance and precision of aerospace components.

One of the highlights of my internship was participating in two workshops an internal workshop and an external Kaizen workshop, an inspiring experience that brought together a multinational team led by one of PPS's legends Sensei Nako. This moment perfectly reflected the spirit of teamwork and Kaizen that defines Pursuit Aerospace.

Today, I'm proud to say that this journey has come full circle, as I now hold the position of Process Engineer at Pursuit Aerospace continuing to learn, grow, and contribute to the exciting world of aerospace manufacturing.



Ons Bouteraa

Hello, my internship at Pursuit Aerospace was a truly valuable experience that marked the beginning of my professional journey. It gave me the chance to understand how things really work within a challenging environment and helped me grow both personally and professionally.

Through the tasks I was entrusted with and the daily collaboration with experienced professionals, I learned to take responsibility, adapt quickly, and stay solution-oriented in every situation.

This experience strengthened my confidence and gave me a clear vision of the path I want to follow in the future.



Motez Saad



Hello, during my internship at Pursuit Aerospace, I quickly realized how truly the company lives up to its slogan "Always Pursuing Better." The spirit of improvement is reflected in every initiative and in the way, Pursuit promotes the Kaizen mindset across all employees.

From day one, I was impressed by how ideas at Pursuit are transformed into real results, especially through the workshops, which for me represent an exceptional learning experience and a unique space for interns to showcase their skills and grow through practice. Collaborating with multidisciplinary teams from various domains encouraged the exchange of knowledge and ideas, making every project deeply enriching.

One of the highlights of my internship was working on a major project during an external workshop with a multinational team, guided by one of the PPS legend Sensei Nako, an inspiring experience that perfectly embodied teamwork and continuous learning.

I joined Pursuit as an intern and, six months later, returned as a KPO Engineer, proud to contribute once again to a company where technical excellence and human collaboration go hand in hand.



Chaima Melki

Hello, knowing that an American-based industry like Pursuit Aerospace was established in Tunisia really motivated me to apply. I was gladly accepted after meeting Mohamed and Ahmed as a first step, and that's how my journey began ,diving deep into the design and development of a chip compacting machine, a project where I applied mechanical design, analysis, and problem-solving skills under the guidance of Ms Nawras, who helped me trace the right path.

Four months later, the project was completed, thanks to the supportive people on the floor. I'm proud to say that the work was well received both at my university and within the factory.

Now, I can say with honor that I've been selected to join the same team as a KPO Engineer, with the hope to excel further and continue pursuing better every day.



Ayoub Marsit

Pursuit

Hello, I would like to express my sincere gratitude to Pursuit Aerospace for the opportunity and the valuable experience I gained during my internship.

I had applied to only a few companies, but I truly hoped to be accepted by Pursuit Aerospace, as both the field of activity and the project topic matched perfectly with my professional goals and the vision I have for my career.

I may not have been the top student in terms of grades, but I always had confidence in my interpersonal skills, my ability to learn quickly, and above all, in my motivation to apply the Kaizen mindset that I discovered during my final year of engineering school.

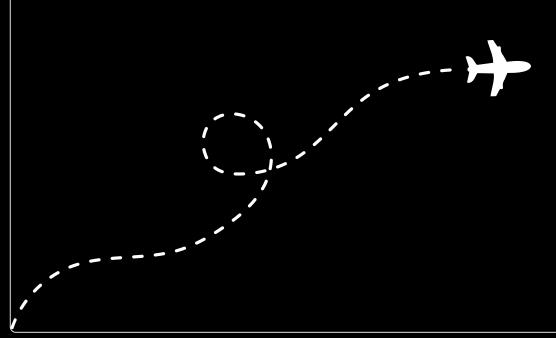
At Pursuit Aerospace, I found that Kaizen spirit alive. I had the privilege meet Mr. Mohamed Saied, whose structured and logical approach during internal workshops truly inspired me and deepened my passion for continuous improvement.

I was also guided by a young and open-minded industrial supervisor, which made teamwork both efficient and enjoyable. The work environment and the people at Pursuit were exceptionally positive and motivating.

Finally, I would like to highlight the external workshop, which was the most memorable part of my internship. It gave me the chance to meet international professionals, share knowledge and skills, and experience a dynamic and energizing atmosphere full of collaboration and enthusiasm.

A special thanks to ENISo, the engineering school where I learned, grew, and developed the mindset that helped me make the most of this experience.











4-6 Months



1

Department: KPO

Subject: Kanban Implementation in Post-Foundry

Flowlines

Description:

Implement Kanban to optimize material flow, cut waiting times, and boost efficiency in post-foundry processes.

Technology/ Knowldge:

Kaizen, Kanban methodology

Degree:

Mechanical Engineer, Industrial Engineer, Electromechanical Engineer, Material Engineer





4-6 Months



1

Department: KPO

Subject: FASTPACK: Smart packaging optimization

Description:

Develop and implement a smart packaging solution to optimize flowline operations, reducing waste, improving throughput, and ensuring safe product handling.

Technology/ Knowldge:

Waste reduction, Supply chain management basics

Degree:

Mechanical Engineer, Industrial Engineer, Electromechanical Engineer, Material Engineer





4-6 Months



1

Department: KPO

Subject: TWI Versatility - Upskilling the Floor

Description:

Apply Training Within Industry (TWI) methodology to enhance workforce versatility and skills on the production floor, promoting kaizen and knowledge transfer.

Technology/ Knowldge:

Workforce development and skills assessment, Standardized work and job instruction techniques

Degree:

Mechanical Engineer, Industrial Engineer, Electromechanical Engineer, Material Engineer





4-6 Months



2

Department: KPO

Subject: VisionGuard - Automated quality control

Description:

Deploy vision inspection systems to verify product quality before shipping, enhancing overall quality and reducing manual visual inspections.

Technology/ Knowldge:

Machine vision and image processing, Data analysis and reporting, Industrial cameras and vision sensors, Image processing software

Degree:

Mechanical Engineer, Mechatronics Engineer, Electromechanical Engineer, Industrial Engineer, Material Engineer





6-4 Months



2

Department: KPO

Subject: IOT insights - Predictive Maintenance of Critical Machines

Description:

Deploy IoT sensors and analytics to monitor critical machines, predict potential failures, and schedule maintenance proactively, reducing downtime and maintenance costs.

Technology/ Knowldge:

Data analysis and machine learning basics, IoT sensors, Connectivity protocols

Degree:

Mechanical Engineer, Mechatronics Engineer, Electromechanical Engineer, Industrial Engineer, Material Engineer





6-4 Months



1

Department: KPO

Subject: Unison parts ceramic removal process optimization for ELOW parts

Description:

Elow parts are parts manufactured using ceramic cores. In the current state, many abnormalities are detected related to ceramic removal process after foundry. The main abnormality is the detection of ceramic inside the part at machining level.

The purpose of this project is:

- Analyse the current state: current ceramic removal process and detection method
- Try new ideas to improve occurrence and detection
- Implement the standard work of the best solution

You will learn a lot from this project such as the casting process, Kaizen tools, NDT challenges...

Technology/ Knowldge:

Ceramic material, Metal material, Problem solving, NDT

Degree:

Material Engineer, Mechanical Engineer, Electromechanical Engineer





4-6 Months



2

Department: KPO

Subject: Post Foundry flowline FL1 one breath

changeover

Description:

Three parts are manufactured in the first flowline of the Post Foundry department. The change of the fixture of one part number takes at least two hours, which affects the material flow and productivity. So, the idea is to create, design, try and implement new methods to change the fixture on one breath (9 seconds). This is challenging, but it is possible and will help us achieve production flexibility.

Technology/ Knowldge:

Machining, Problem solving, Designing

Degree:

Mechanical Engineer, Mechatronics Engineer, Electromechanical Engineer, Industrial Engineer, Material Engineer





4-6 Months



2

Department: KPO

Subject: Moonshine a right sized and ergonomic cutoff machine for swirler castings

Description:

Today, we are cutting the parts using the same machine that we are using for 20 years!

This old process, despite many improvement trials, it caused at least one incident per year. This is in addition to the incident absenteeism that impacts productivity, the big size of machine, the other EHS abnormalities (dust, noise...)

All these pain points have made this important project to improve people working condition as main goal and improve productivity as a result.

Technology/ Knowldge:

Problem solving, Designing, Risk assessment

Degree:





4-6 Months



1

Department: Engineering

Subject: Double Firin - New method to fire shell ceramic molds - An overview of potential solution for inclusion and gas

Description:

Before we pour metal in the shell molds we fire them in gas furnace. The firing is done in 1 cycle composed of 2 steps burnout and then pre-heat. This is one of the method to do the firing.

There is another method used by many foundries all over the world which is the double firing. The idea is to fire the shell molds in 2 independed cycles and between the cycle you have the opportunity to inspect and clean the molds.

Thes method will help to decrease inclusions and gas defects on casting parts.

Technology/ Knowldge:

Define double fire process standard, Define cleaning process standard, Decrease inclusions and gas defects on castings

Degree:





4-6 Months



1

Department: Engineering

Subject: Foundry Cooling parameters control

Description:

During the year we made a lot of improvement in our foudry department. One of the point that we need to focus on which present a source of variation that prevent us from having steady part quality is the cooling parameters. Currently the process is controlled within the foundry as whole area.

The idea is to control the cooling by mold.

Technology/ Knowldge:

Mold cooling controlling process

Degree:





4-6 Months



1

Department: Engineering

Subject: Ceramic Fiber Blanket process variation elimination using 3P kaizen tool (Production Process Preparation)

Description:

In order to control cooling rate and hot spot on foundry after pouring metal, foundry team use Ceramic Fiber Blankets at specific zones to guarantee part feeding and prevent shrinkage defect.

The process of Ceramic Fiber Blankets application before foundry is very critical and depends on many parameters such as: thickness of blankets, size and forms, zone to be hidden, product used to stick blankets.

The objective of the project is to optimize these parameters and eliminate process variation since it is all done manually.

Technology/ Knowldge:

Detailed SOP (Standard Operation Procedure), Eliminate process sources of variation

Degree:





4-6 Months



3

Department: Engineering

Subject: Investment casting foundry process sources of variations: detection & remedies

Description:

Investment casting is one of the most important foundry processes since it produce:

- Complex internal shape castings
- Good casting surface riguosity
- Machining near shape castings
- Stable dimensional castings

This process is very complex and encompass many source of variation that need to be controlled to guarantee quality of the product.

Technology/ Knowldge:

Investigation on main sources of process variation, Action plan to mitigate these sources

Degree:

Material Engineer, Mechanical Engineer, Electromechanical Engineer





4-6 Months



1

Department: Machining

Subject: Integration of Probing Systems for In-

Process Inspection

Description:

Implement CNC probing systems for automated in-process measurement to reduce manual inspection.

Technology/ Knowldge:

Probing system setup, inspection program, process validation report

Degree:





4-6 Months



1

Department: Machining

Subject: Surface Finish Improvement of SOS parts

Description:

Analyze machining parameters to improve surface quality and reduce rework.

Technology/ Knowldge:

Surface quality analysis, parameter optimization report, before/after comparison

Degree:





6 Months



4

Department: Production

Subject: Eliminate scrap in production line

Description:

The goal is to identify the main sources of non-conformities, analyze their root causes, and implement corrective and preventive actions to minimize waste and improve quality performance

Reduce the overall scrap rate by at least 50% by the end of the project period.

- Identify and eliminate the top contributors to scrap using root cause analysis (5 Why, Ishikawa).
- Strengthen process control through standardized work instructions and operator training.

Technology/ Knowldge:

The project uses key improvement tools such as:

- 5 Why and Ishikawa for root cause identification.
- SPC and Pareto Analysis to control processes and prioritize major scrap sources.
- Standard Work and Audits to ensure consistent operations.
- KPI and data tracking to monitor progress.

Key learning outcomes include problem-solving skills, data-based decision making, teamwork between production and quality, and the ability to transform analysis into effective process improvements.

Degree:





6 Months



1

Department: Production

Subject: Production KPI Dashboard Digitalization

Description:

This project focuses on developing a digital Production KPI Dashboard for Pursuit Aerospace. The goal is to centralize key performance indicators such as efficiency, delivery, and labor hours into one interactive and automated visualization tool to support decision-making and performance monitoring.

Design and implement an interactive Power BI or Excel-based dashboard to monitor key KPIs.

Integrate data from different production departments (Efficiency, Delivery, Hours).

Provide real-time updates and visual alerts for underperformance. Improve management visibility and facilitate faster decision-making.

Technology/ Knowldge:

- **Tools and Software:** Microsoft Power Bl, Excel VBA, Data Connection, and SQL (if used).
- **Knowledge Areas:** Data visualization, KPI analysis, dashboard design, and automation.
- **Methods Applied:** Lean performance tracking, color-coded alert system, and trend analysis.

Degree:





6 Months



1

Department: Production

Subject: Optimization of the Master Production Schedule (MPS)

Description:

At Pursuit Aerospace, production planning was previously managed at the business unit level, causing uneven workload distribution, inefficiencies, and delivery delays.

This project aims to implement a Master Production Schedule (MPS) by workcenter to:

- Align production capacity with customer demand.
- Balance workloads across workcenters.
- Improve visibility and predictability of production.
- Enhance coordination between Planning, Production, and Supply Chain teams.
- Reduce delays and overtime through better resource allocation.
- Standardize reporting to monitor MPS execution.

Technology/ Knowldge:

Tools & Software: Excel-based planning models, and capacity planning tools.

Knowledge Areas: Production planning, capacity analysis, workload balancing, and Lean scheduling principles.

Methods Applied: MPS design, workload simulation, and bottleneck analysis.

Skills Developed: Analytical planning, cross-functional collaboration, and operational strategy.

Degree:





4-6 Months



1

Department: EHS

Subject: Production Employees Ergonomic assessment and improvement

Description:

The goal of this project is to identify ergonomic risk factors at two different production sites and to develop a comprehensive action plan aimed at mitigating those risks. Ergonomics is the science of designing workplaces, products, and systems to fit the people who use them. Identifying ergonomic risks is crucial to ensuring the health, safety, and productivity of workers in a manufacturing or production environment. The focus will be on:

- Workstation Design: Seating and posture/Desk height and layout/Tools and equipment.
- Repetitive Motion and Manual Handling: Repetitive tasks/Heavy lifting or awkward postures.
- Environmental Factors: Lighting/Noise levels/Temperature and ventilation.
- Workload and Work Schedules: Overtime or long shifts/Rest breaks.

Technology/ Knowldge:

Video Analysis Tools, 3D modeling software, Ergonomic Principles, Workplace Design Standards, Musculoskeletal Disorders (MSDs), Data Analysis Skills

Degree:

Master's in Ergonomics





6 Months



1

Department: EHS

Subject: Extraction system: Assess and Improve

Description:

This project will focus on improving the ventilation in various production environments that are exposed to high levels of dust and volatile organic compounds (VOCs), which can pose serious health and safety risks to workers. Effective ventilation is essential in minimizing the exposure to harmful particles and gases, thereby reducing the risk of respiratory illnesses, skin irritation, and other work-related diseases. Steps:

- Assessment of Current Conditions
- Designing Solutions for Improved Ventilation
- Feasibility Study: Economic and Technical Aspects
- Develop an action plan

Technology/ Knowldge:

Fundamentals of Airflow Dynamics, Types of Ventilation Systems, Air Quality Monitoring, Energy Efficiency, HVAC Systems, Duct Design Software

Degree:

Chemical Process Engineer





6 Months



2

Department: Maintenance

Subject: Standardization of Spare Parts Inventory

Management

Description:

This project focuses on implementing an inventory management system for a spare parts warehouse, making it a highly practical and technical topic that integrates industrial management, maintenance, and logistics. Key objectives include:

- Performing a complete physical inventory of the warehouse.
- Identifying and classifying all parts using a standardized method (e.g., code, family, supplier, associated machine).
- Updating and optimizing the existing database within the management system.
- Introducing a QR code labeling system for each spare part, enabling technicians to scan codes with a smartphone for direct stock withdrawal.

Technology/ Knowldge:

Mechanical/Electrical drawings, Solidworks

Degree:

Mechanical Engineer, Electrical Engineer, Electromechanical Engineer





6 Months



1

Department: Supply Chain

Subject: Standardization of alloy revert management process

Description:

The project aims to standardize the alloy revert process to improve efficiency, traceability, and material utilization.

Key activities include:

- Mapping the current process with flowcharts.
- Developing Standard Work (STD Work) for consistent execution.
- Defining roles and responsibilities.
- Optimizing material flow and storage.
- Monitoring KPIs to track performance and adherence.

The result will be a streamlined, efficient, and consistent alloy revert process across the supply chain.

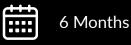
Technology/ Knowldge:

AMDEC

Degree:

Quality Engineer, Logistic Engineer







1

Department: Supply Chain

Subject: Standardization of Raw Materials Inventory Management & Monitoring

Description:

The project aims to standardize and optimize raw materials inventory to improve accuracy, reduce waste, and support production.

Key activities:

- Map the inventory process with flowcharts.
- Develop Standard Work (STD Work) for consistent handling.
- Define roles and responsibilities.
- Implement monitoring and reporting for stock levels.
- Optimize storage and material flow.

Outcome: A streamlined, efficient, and transparent inventory process.

Technology/ Knowldge:

Supply Chain basic tools, Kaizen

Degree:

Logistic Engineer, Supply chain Engineer, Industrial Engineer



HOW TO APPLY



- Select a single topic from the PFE Book
- **Scan The QR Code Below**
- **S** Complete the form



Each student may apply for up to three PFE subjects

Pursuit



Interns' Integration Day 2025

ALWAYS PURSUING

BETTER

