

# RANGANATHAN RAMASAMY

## MANUFACTURING ENGINEER

### CONTACT



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Bangalore, Karnataka



[Ranganathan Ramasamy](#)

### EDUCATION

- Bachelor of Mechanical Engineering, Government College of Technology, Coimbatore, Tamil Nadu.
- Diploma in Mechanical Engineering, NPA Centenary Polytechnic College, Nilgiris.

### CERTIFICATIONS & SKILLS

- Lean Six Sigma Green Belt ([Link](#))
- SAP
- Lean Manufacturing ([Link](#))
- GD&T
- ENOVIA
- Process Improvement
- Process Design ([Link](#))
- Lean techniques like LSS, 8D approach of corrective action / preventive action.
- CATIA V5. ([Link](#))
- Team center.
- FMEA ([Link](#)).

### SOFT SKILLS

- Leadership.
- Flexibility.
- Problem Solving.
- Critical Thinking.

### PROFILE

Innovative and knowledgeable Manufacturing Engineer with a history of success for the past 8+ years in the Aircraft Assemblies and Fabrication Industry. Highly skilled in using computer-assisted technology to develop new processes. Notable talent in creating new methods of manufacturing that reduce costs and improve product quality. Experience in a variety of manufacturing processes and with many of the most common technologies and innovations.

### AREAS OF EXPERTISE

#### Process Engineering

- Process Capability Calculation
- ECN Implementation
- Lean Manufacturing
- Process Validation

#### New Product Development

- Product Validation
- Feasibility Study
- BOM Preparation
- Lead Time Monitoring
- FAI & Prototype

#### Documentation

- PPAP/FAI
- PFMEA
- APQP
- TQM

#### Industrial Engineering

- Bottleneck Identification
- Line Balancing
- Cycle Time Study
- Process Capability

### PROFESSIONAL EXPERIENCE

Manufacturing Engineer in **Tech Mahindra Ltd, Client Bombardier Aerospace**, Montreal, Canada | Bengaluru, Karnataka | Feb – 2023 to Till date.

#### Roles and Responsibilities

- Modified mechanical components and assemblies for in Legacy aircrafts.
- Assembly production order and NCR Order creation for using SAP.
- Creation & validation of Engineering Drawings/Process/Control plan/Standard operating procedure for process and internal operations.
- Study of engineering drawings and decide suitable operation and tools
- Performed structural and system analysis for modification mechanical parts and assemblies.
- Creation of Tool design and Tool order based on Manufacturing and Engineering requirements using SAP.
- Investigated as pre-plan and snag sheets assembly and systems, analysed failures, and generated corrective actions.

## PROJECTS HANDLED

- Boeing AH64.
- Boeing 777X.
- Boeing 737 Vertical Fin.
- C130.
- COBHAM.
- Mirage 2000 Detail Parts Project Leader.
- TAML, TAL for Detail Parts.
- CHCK Tail boom for HAL Helicopter Division.
- PSLV Nose cone and SSLV for VSSC.
- SUKHOI -30 for HAL – Aircraft Division.
- AWACS DOME project for CABS DRDO.
- Dassault Rafale and Falcon jet.
- Fokker, Magellan for Detail Parts.
- Bombardier and Embraer
- Pilatus
- Dassault and Airbus
- Gulfstream

## PROFESSIONAL EXPERIENCE

Senior Manufacturing Engineer in Quest Global Engineering Services Pvt Ltd.  
Client **COLLINS AEROSPACE** | Bengaluru, Karnataka | Oct– 2022 to Feb – 2023

- Controlling and Monitoring of ECN & design change note.
- Release of PIs, Drawings to relevant Operational functions.
- Preparing and modifying PFMEA and Control Plan.
- Preparing process capability study report.
- Ensuring Configuration management practiced across the Department.
- Fixture planning for critical assembly (Mechanical Fixtures)
- Knowledge of assembly process like Tinning, Soldering and Stripping for aircraft interior, exterior lighting systems
- Work with Supplier child parts improvements
- Handling New Product Development of Interior and exterior lighting systems various OEM Customers.
- Create a PFMEA and Control plans for assigned projects.
- Lead Manufacturing Engineer - Lean Methods implementation.
- Extensive experience in Planning and Operations.
- Reviewing, developing, and improving production methods, facilities, and safety regulations old aircraft parts.
- Researching and analyzing information to develop designs and solve problems.
- Developing tooling requirements based on manufacturing and engineering requirements.
- Continuously review the existing assembly process and drive process improvements
- Developing work instructions for installing wire harnesses and components in panels and other assemblies.
- Collaborate and support other functions within the manufacturing team during the production builds.
- Working with various quality and MRB personnel to solve re-work problems on a daily basis.
- designing, testing and implementing parts, systems, and procedures all types of lighting systems.

## AWARDS & ACHIEVEMENTS

- I Have Done 492 FAI Parts In Dassault Mirage 2000 Fighter Aircraft.
- Zero Rework Production System.
- Sheet Metal Shop TQM Implementation Award.
- CMM Operation Removed: I Found One gauge For Boeing Clip Part (PO Qty Is 6000) Time Save for 24000 Minutes.
- Implemented De-Printing Machine
- Zero Rework Production System.
- Saksham Blue Belt (Expiry on 27-11-2023).

## PROFESSIONAL EXPERIENCE

**Manufacturing Engineer in TATA SIKORSKY AEROSPACE LTD | Hyderabad, Telangana | November – 2019 to October-2022.**

### Roles and Responsibilities

- Preparation / modification of Manufacturing Descriptions.
- Understanding of Product and process Requirement.
- Gauges and Fixtures to be planned for new product with GD&T.
- ECN Implementation.
- Implementing Lean Manufacturing.
- Communication with production, Quality Assurance & Purchase department for Prototype Development.
- Preparing (WI) Work Instructions.
- Cycle time calculation.
- Built 300+ detail prototype parts for new products and design improvements.
- Experience and knowledge of Aircraft Structural assemblies, methods, fabrication processes. (e.g., forming, annealing, solutionizing, alodine, etching, anodizing, stamping)
- Assessed prototypes of new or improved product lines to determine best methods of achieving cost-effective mass production.
- Providing support in the production area and ensuring the smooth progression of projects through manufacture and assembly
- Ensuring the necessary documentation are in order and up-to-date
- Introducing new manufacturing processes and systems
- Actively participating in continuous improvement activities
- Capturing and analysing data of manufacturing processes
- Performing daily checks and carrying out root cause/failure analysis and resolution
- Redesigning or improving product/service functionality
- Knowledge of surface finishes, coatings, paints, sealants, bonding and grounding for aircraft sheet metal parts
- Play a key role in developing, implementing, and documenting manufacturing processes for new products
- Improved workflow operations and reduced manufacturing time by 20% using Six Sigma and Lean Manufacturing methodologies
- Worked with QA engineers to investigate and resolve customer returned part concerns using 8d analysis.
- Implemented changes to the process in order to eliminate repeat incidents.
- Worked with tooling to modify any existing tooling affected by part design changes.
- Working with various specifications to ensure components were being detail parts properly, while also making suggestions on how to improve reduce time.

## PROFESSIONAL EXPERIENCE

Process Engineer in **Advanced Technology Centre (Aerospace)-LMW Group** | Coimbatore, Tamilnadu | Jul 2015 to Oct-2019

### Roles and Responsibilities

- Found cost savings, reworked SOPs to optimize time and safety, performed FMEAs and CAPAs
- Validated equipment and processes. Reviewed technical documents, and documented tests
- Develop best practices, routines, and innovative solutions to boost production
- rates and output quality
- Conduct process simulations
- Having knowledge in Annealing, Solutionizing, Ageing, Normalizing, Etching Process.
- Having basic knowledge of Anodizing, Alodine, Chemical Milling, Abrasive Blasting, NDT & Surface treatment.
- Hands-on experience in Forming, Hot Forming, CHS, and Hand Dressing for all type of sheet metal parts.
- Having a fabrication experience in all types of extrusion parts forming, Sheet metal parts forming, hand dressing, check and hand straighten operations.
- Knowledge of quality instruments like Faro, vernier calipers & bevel protector, VMM.

### Types of Parts Fabricated and Materials Handled

- All type of aluminum parts like 2024, 6061, 5086, 2014.
- Inconel, SS, Titanium, Brass, Copper, Composite, Rubber materials fabrications for hands on experience.
- Tube parts, Extrusion parts, Mesh parts, Engine sheet metal parts, Skin parts, Frame parts for tail boom.
- Standard parts like plastic parts, box parts, washer parts doing for sheet metal operations.

## LANGUAGES

- English (Speaking)
- Tamil (Native)
- Kannada (Native)
- Hindi (Basic Level)
- Telugu (Basic Level)