

Machining Aerospace Materials - Challenges and Solutions

Date: 17 to 18 July, 2025

Time: 1340 Hrs to 1700 Hrs (Online Mode)

INTRODUCTION

Aerospace component machining companies have many defence and commercial airline projects subcontracted to them by large global Aerospace majors. But machining shops, if caught in unfamiliar territory can get themselves into trouble when working on such complex projects. Machine shops new to aerospace machining should be aware of the risks, not just the rewards. Aerospace majors place the highest demands for quality and precision for all components sourced machining shops. If suppliers are not aware of the complexities of aerospace machining, they can be stuck in a contract which they find difficult to execute and potentially lose money every time they machine a part.

Anyone looking at taking up machining of such complex aerospace materials may want to do a little more homework to fully understand the challenges before they get started. Hence it is critical is to plan exactly how to handle aerospace materials better and how to apply the right techniques for optimal machining.

FOCUS AREAS

- Trends & Challenges in Aerospace Materials material properties of super alloys, composites, etc.
- Machinability of Aerospace materials; Machining of Titanium and super alloys Tool selection
- Typical cutting parameters for Titanium & Super Alloys machining; selection of parameters for the different operations
- Typical Case Studies from aerospace industry
- Tools and selection of parameters for machining aluminium alloys
- New Generation cutting tools for machining Aerospace materials
- Do's & don'ts in aerospace material machining

KEY TAKE AWAYS

- Understand machining strategies for machining Titanium alloys and other materials
- Select optimum cutting parameters for machining aerospace materials
- · Understand high speed machining of aluminium alloys in aerospace industry
- · Learn about latest development in machine tools for aerospace material machining
- Learn about latest types of cutting tools for machining aerospace materials

FEE PER PARTICIPANT (PER LOGIN)

Rs. 7500/
+18% GST

IMTMA Members/ Micro Companies/ Individuals/
Educational Institutions / Students/ IMTMA Non

Members/ Others

USD 300/-Overseas Participants

Group Concession: 10% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company

FACULTY

This programme will be conducted by **Mr. Pradeep Kumar**. He is a Mechanical engineer, started his carrier with NTTF where he was training students in Die and Mould making. He was with Kennametal cutting tool manufacturing industry more than 32 years, having experience in the area of sales and marketing of Metal Cutting, Metal forming and Mining tools. Last 10 years, he was head of knowledge centre in Kennametal and trained more than 20000 executives in the field of metal cutting tools and its applications.

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