Manufacturing Technology Training
An IMTMA initiative

Machining Aerospace Material
Date : 22 to 23 July, 2026
Venue : IMTMA Technology Centre, Pune

INTRODUCTION

Aerospace industry is growing at a rapid pace and India is emerging as a preferred hub for aerospace manufacturing. However, machining of aerospace components is quiet challenging as it involves advanced materials like high performance metal alloys & composites. The machinability of these materials, complex shape coupled with stringent quality requirement makes the machining process highly demanding. The major challenges are thermal degradation, delamination, tool wear, composite erosion by continous chips of metallic materials, built up edge, etc. Appropriate selection of tooling and optimum application of machining parameters is crucial to achieve the desired results..

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 and programming strategies.
- Typical cutting parameters for Ti & super Alloys machining; selection of parameters for the different operations – using catalogues / web based solutions
- Typical Case Studies from aerospace industry
- Tools and selection of parameters for machining aluminium alloys
- New Generation cutting tools for machining Aerospace materials
- Composites - Types & Applications with industry examples;
- Typical case studies in using composites for aerospace structures.
- Machining of Composites – Tool selection & programming strategies;
- Typical cutting parameters for machining composites;
- Do's & don'ts in composite machining
- Real time machining – Demonstration of machining of aerospace materials machining on CNC machining centres.

KEY TAKE AWAYS

After undergoing the programme, the participants will be able to –

- Understand machining strategies for machining Ti 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
- Go through live machining demo on CNC machining centre

PARTICIPATION FEE

Rs. 4999/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ IMTMA Non Members/ Others

Rs. 2500/-
+18% GST
Professors

Rs. 999/-
+18% GST
Student

USD 200/-
Overseas Participants

Group Concession : 10% for 3 to 5 and 20% for 6 and more delegates being nominated from the same company

PARTICIPANT PROFILE

This programme will benefit Managers, Engineers, Supervisors, Programmers & other personnel involved in the functions of Production, Process Planning, Engineering & Manufacturing and sourcing of Aerospace components.

The programme will be highly interactive where participants can raise questions and solicit feedback from the expert faculty.

FACULTY

This programme will be conducted by, IMTMA Subject Matter Expert.

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.

For Registration Contact

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REGISTRATION : Prior registration for participation is necessary. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.
Important Information : Participation fee includes, course material, working lunch and tea / coffee. Interested companies are requested to register online by clicking on 'REGISTER' button and by filling up the nomination authority and participant's details in specified form.