

Manufacturing Technologies with Advanced High Strength Steels (AHSS)

Date: 12 March, 2024

Time: 1340 Hrs to 1700 Hrs (Online Mode)

INTRODUCTION

In order to meet the conflicting requirement of low emissions, high mileage, high pickup with sturdier and crash safety compliant vehicles; automotive and aerospace sector is going for lighter but stronger material for slender structural parts. There are special challenges in manufacturing using Advanced Higher Strength Steels and Higher Strength Aluminium. Special Technologies have evolved like:

- Use of "Tailored Blanks" where patches of higher strength material are pre welded with regular material before stamping.
- Use of Hot Forming for AHSS and Aluminium where the strength builds after forming.

FOCUS AREAS

- Development of new steels
- Challenges in cold forming the AHSS
- Need for tailored properties in sheet parts
- Tailor welded blank
- Formability and Die Design Challenges in using Tailor Welded Blanks
- Hot Forming of Boron Steels
- Equipment and tools for hot forming
- Metallurgical Basis of strength development
- Tailoring of properties with Hot Forming of steel
- Hot Forming of Aluminium and Titanium
- Warm Forming

KEY TAKE AWAYS

- Applications of Higher Strength Materials
- Material Mix for vehicle safety requirement
- Welding technologies for Tailor Welded Blanks
- Spot welding of Hot Formed parts
- Competencies and Software ecosystem for Hot Forming

FEE PER PARTICIPANT (PER LOGIN)

Rs. 3500/-

+18% GST

IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others USD 140/Overseas Participants

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

FACULTY

Mr. Avinash Khare is presently working as an Advisor and Consultant Head for IMTMA Pune Technology Centre for last 5 years; he has been designing, developing content and delivering wide range of Training Courses as a Faculty. He is Electrical Engineer by Qualification and he has worked for over 33 years at Tata Motors Pune in various capacities ranging from R&D in Industrial Electronics, Machine Maintenance, Technology Procurement, Head of Machine Shops, Tool Room Shop Head, Head of Die Design and Champion in Business Excellence. He has taught Instrumentation and Bio Medical Instrumentation at Pune University as part time faculty.

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