Manufacturing Technology Training
An IMTMA initiative

Heat Treatment and Metallurgy
Date : 28 to 29 May, 2026
Venue : IMTMA Technology Centre, Pune

INTRODUCTION

Heat Treatment is a core manufacturing process carried out under controlled application of temperature and atmosphere to optimize certain physical and mechanical properties of metals/alloys. Heat treatment is an enabling process that can improve product performance by increasing its strength or other desirable characteristics such as machinability, formability, ductility, etc. The process of heat treatment has a major bearing on the quality of the end product and finds a wide application in many industries such as Automobile & Auto Components, Dies & Mould, Machine Tools, Aerospace, General Engineering and so on.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organising a 2 day programme on **"Heat Treatment-Metallurgy and processes"**

FOCUS AREAS

- Fundamentals & Purpose
- Basic Heat treatment processes (Annealing, Normalising, Hardening, Quenching, Tempering, Case Carburising & hardening, Case Nitriding, Sub?zero treatment, Induction Hardening)
- Advanced techniques (Vacuum hardening, Toughtriding)
- Process problems and solutions
- Techniques of distortion control
- Successful drawing requirements
- General Quality plan of H/T for acceptance / rejection
- Industry practices
- Understanding of case depth determination (Carburising, Nitriding & Induction hardening particularly in case of components like gear, Shafts Plane & spline)
- Common failures and remedies

KEY TAKE AWAYS

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

- Learn about various heat treatment methods and specific applications of each process
- Develop Quality plan for critical heat treated components
- Understand how to calculate and control case depth in surface hardening
- Understand common problems encountered in heat treatment and remedies

PARTICIPATION FEE

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

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 Designers, Production Engineers involved in Heat Treatment processes (In?house / Subcontracted), Quality & Inspection engineers from Automobile & Auto ancillaries, Die & Mould, Machine Tools, Aerospace, General Engg., Defense & Railway units and other related Manufacturing industries.

FACULTY

This program is conducted by **Mr. Ajay Tare,**

Mr. Ajay Tare, is in the fields of Metals and Metallurgy, for the last 40 years and retired as COO from a very large Commercial Heat Treaters and handled positions as VP Operations, Sr. Manager, Operations Managers, QA Head in various prestigious companies like Bajaj Auto ltd, Mahindra and Mahindra Ltd, Eicher Good Earth Ltd, Nagpur Tools and Avdhoot Technocrats. His experience in all the portfolios of Metallurgical Engineering; R & D, Operations, Quality, Manufacturing Engineering, NPD, Business Excellence.

He is an Metallurgical Engineer from Nagpur and also completed Post Graduate Diploma in Quality Management, PGDQM, from prestigious Mahindra Institute of Quality. He is Six-Sigma Green Belt professional. On management side, he has successfully completed Harvard Manage Mentor, HMM, by HB School. Since he is a Industrial Trainer he has passed "Train the Trainer" by Dale Carnegie Training Centre.

A very versatile experience of processing all types of ferrous materials like Case Hardening Steels, HSS, HDS, HCHCr, Stainless Steels, Bearing Steels, Spring steels, Tool steels, Boron steels and non-ferrous materials like Aluminium, Copper, Brass, Bronz, Magnesium alloys.

He is well conversant with Processing of parts of defence, mining, earth moving equipment, automobile, tractor, Industry and their requirements.

Currently, he is associated with prestigious organisation for Training and Teaching and working as a "Professional Consultant" for many companies, including MNCs.

For Registration Contact

Nagraj Hamilpure
Programme Coordinator
9881616902
n.hamilpure@imtma.in
Back End Operations
9742626488
enquiry@imtmablr.com

Contact Address

INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION
12/5, D-1 Block, MIDC, Chinchwad,
Pune-411019
Board Line : +91 7066030531 / 532

imtmatrainning.67038796@hdfcbank

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.