Manufacturing Technology Training
An IMTMA initiative

Fundamentals of Injection Mould Design
Date : 8 to 9 October, 2024
Venue : IMTMA Technology Centre, Bengaluru

INTRODUCTION

We are said to be living in an era of Plastics since 1974, as the world consumption of plastics from that year onward exceeded that of steel by volume! From household appliances to airplanes, from tooth brushes to telephones, from Computers to cars, everything seems to be made out of plastics these days. Injection moulded plastic parts offer unbeatable combination of Light Weight Construction, Flexibility, Toughness, Chemical Resistance, Long-term Performance and Cost Effectiveness.

The defects in injection moulding may be caused by poor part design, wrong selection of material, poor injection mould design, poor manufacture of mould, non-optimum process parameters and wrong matching of mould with machine amongst others. Knowledge of ways and means of overcoming these defects is necessary to obtain world class injection mouldings.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing a training program on **"Fundamentals of Injection Mould Design".**

FOCUS AREAS

- Introduction to injection moulding?
- Types of Injection moulding techniques
- Types of moulds used in the industry
- DFMA in plastic moulding
- The moulding machine
  - Operating conditions i.e.
  - Injection Pressure
  - Melt Temperature
  - Mould temperature
  - injection speed & time, etc.
  - Optimization of moulding process through scientific moulding
- Various defects, causes and solutions on
  - Sink Marks
  - Weld lines
  - Streaks
  - Blistering
  - Jetting
  - Short shots
  - Flashes
  - Warpage
  - Ejector marks
  - Scratches on the parts
  - Burn Mark
- Moulding simulation and its significance in reducing time to market
- Latest trends and technologies in Injection moulding
- **Real life case studies.**

KEY TAKE AWAYS

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

- Understand root causes & address the defects with suitable remedies.
- Move towards zero defects in moulding
- Become self-certified supplier for OEMs
- Implement analytical approach to problem solving of moulding defects.
- Understanding the importance of mould / die design during product design.
- Importance of process simulation during die design.

PARTICIPATION FEE

Rs. 10450/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 415/-
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 New Recruits, Junior Engineers, Designers, Supervisors, and technical personnel involved in the functions of Design and Development of moulded components, Processing of moulded parts, Quality Control, mould design and manufacturing.

FACULTY

This program will be delivered by **Mr. Ramesh Srinivasa Rao.**

Mr. Ramesh Srinivasa Rao is an experienced mechanical design engineer professional with 35+ years of work experience in the field of plastics, plastics testing, precision components, and product design. He has been responsible for mechanical design services across the Automotive, Medical, Industrial, process and consumer electronics verticals. He built, trained, and managed teams of 250 + engineers in Plastics, Injection Molds, Dies, and Die Casting Die, New Product Design, Industrial Design, Packaging, Testing, and Reliability. Currently holds seven US patents, two on medical products and four on interconnects. Handled complex projects and managed engineering operations worldwide. Previously worked for L&T Technology Services, Molex, Flextronics, National, etc.

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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.