

Fundamentals of Injection mould design

Date: 20 to 22 September, 2023

Time: 1340 Hrs to 1700 Hrs (Online Mode)

#### 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 3-days online program on "Fundamentals of Injection Mould Design" on 20 - 22 September 2023.

#### **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 and samples from industry.

#### **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.

# FEE PER PARTICIPANT (PER LOGIN)

Rs. 8500/-+18% GST

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

USD 340/-**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.

# For Registration Contact

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# **Contact Address**

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