

INTRODUCTION

Several different methods such as casting, powder metallurgy, forging and machining are available to shape metals into useful products. One of the oldest process is sand casting which basically involves pouring molten metal into a sand mould cavity, where upon solidification it takes the shape of the cavity. Beauty of this process is, any complicated shape in any metal can be casted. Sand casting technique is the most cost-effective and design flexible in foundry. Innovative and well-planned management of sand is essential for maintaining quality of the product and process. Success of getting defect free sand casting depends on gating and riser design and other process control in the foundry. Defect in casting also can be prevented by applying DFM techniques for casting and effective use of simulation. Knowledge on all these topic is must for foundry engineer, casting design engineer and supplier quality engineers.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing a webinar on “Defect-free Sand Castings through Right Part and Process design”.

FOCUS AREAS

- Introduction to Metal casting processes
- Sand casting processes
- Sand Casting defects and remedies
- Pattern and its design principles
- Gating design from first principle
- Riser design from first principle
- DFM for sand casting
- Capabilities and limitations of sand casting processes
- Casting simulation.

KEY TAKE AWAYS

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

- Understand importance of sand Casting
- Understand various sand casting processes
- Understand sand casting defects and its remedies
- Learn Pattern design principles to prevent defects
- Learn how to design Gating and Riser system to eliminate defects
- Learn DFM for Casting to prevent defects
- Understand capabilities and limitations of sand casting processes
- Learn Importance of casting simulation for defect control.

FEE PER PARTICIPANT (PER LOGIN)

Rs. 4000/-  
+18% GST

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

FACULTY

This Program will be conducted by **Mr. Ganapathi K N**. He is having 16 years of industrial and 16 years of academic/Training experience. He is a mechanical engineer with post-graduation in metal casting science and engineering. Prior to working at IMTMA, Mr. Ganapathi has worked at various capacity in both Ferrous and nonferrous foundries. He has thorough understanding of all foundry operations and has experience of providing solutions to the foundry problems. He has also imparted specialized training on metal casting domain to more than 1000 engineers across manufacturing companies in India. He has also taught metal casting topics to post graduate engineering students.

For Registration Contact

**Amarendu Debnath**  
**Programme Coordinator**  
+91-9977133067  
[gurgaontraining-an@imtma.in](mailto:gurgaontraining-an@imtma.in)  
**Nishant Singh**  
9823174010  
[nishant@imtma.in](mailto:nishant@imtma.in)

Contact Address

**INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION**  
Plot 249F, Phase IV, Udyog vihar, Sector - 18,  
Gurgaon - 122015  
Tata no- +91-124-6463101  
Tel : 0124 4014101 - 04  
Fax : +91-124-4014108

