Manufacturing Technology Training
An IMTMA initiative

Cold Forging Technology - Process, DFM and Quality Considerations
Date : 22 to 23 February, 2022
Time : 1340 Hrs to 1700 Hrs (Online Mode)

INTRODUCTION

In today's manufacturing scenario, where shortage of raw materials, power & increasing pressure to reduce costs are the order of the day, 'Cold Forging' is possibly the most suitable solution for these pressing issues. Cold forging technology utilizes innovative design coupled with process sequencing to not only reduce costs by utilizing lesser raw material but also imparts greater strength to the component, in addition to increased productivity. The primary advantage is the material savings achieved through precision shapes that require little finishing. Completely contained impressions and extrusion-type metal flow yield draftless, close-tolerance components. Production rates are very high with exceptional die life. However, Tool design and manufacture are very critical for reliable production of parts.

Keeping this in view, IMTMA is organizing an online training on **"*Cold Forging - Process, DFM and Quality considerations*".**

FOCUS AREAS

- Concept, principles and benefits of CE
  - Typical components suited best for CE
  - Achievable tolerances.
  - Limitations.
- Raw material selection for CE
  - Importance of alloying material.
  - Requirements for successful extrusion.
- Concept of Spherodise annealing.
  - Typical process cycle.
  - Equipment used.
  - Important controls on furnace.
  - Checking parameters.
- Process sequence of CE
- Slugging, Types, influence on process
- Control parameters, Equipment used.
- Machines available in market.
- Phosphate & molycoating.
  - Role of Phosphating.
  - Type of phosphating.
  - Operation sequence.
  - Checking parameters.
  - Equipment for Molycoating.
- Process Cold extrusion.
  - Types of CE
  - Passes used & energy levels in press.
- Hydraulic press application.
- Information on tool setting
- Dangers in press operation & safety
- Case studies on CE parts

KEY TAKE AWAYS

After undergoing the programme, the participants will be able to

- Have an overview of Cold Forging Technology and their specific industry applications.
- Understand process sequence and the parameters involved in CE.
- Get to know the equipment / set up for cold forging.

FEE PER PARTICIPANT (PER LOGIN)

Rs. 4500/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 180/-
Overseas Participants

Group Concession : 20% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company

PARTICIPANT PROFILE

This programme will benefit practicing engineers and senior technical personnel involved in the functions of Design and Development, Process Planning, Product Engineering, Application engineering, R&D, Manufacturing, Quality Assurance, Servicing etc., and other related areas from Machine Tool, Automobile & auto ancillaries, Tool rooms, Defence and Railway establishments, General Engineering and other Capital goods manufacturing industries.

The programme will be highly interactive where participants can raise questions and solicit feedback from the expert faculty.

FACULTY

This programme will be conducted by **Mr. H. C. Parthasarathy,** Industry expert in Cold Forging and manufacturing engineering.

Mr. Parthasarathy is a Mechanical Engineer by profession has served in the manufacturing sector for over 45 years at reputed organizations such as TELCO, Bosch, MICO, TVS and BPL. He has hands on experience in developing more than 100 components utilizing the cold forging technology. He also has two international process patents in this field.

For Registration Contact

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REGISTRATION : Prior registration with an online advance payment is must. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.