Manufacturing Technology Training
An IMTMA initiative

Design of Gearbox for Industrial Machinery

Date : 13 to 17 December, 2021
Time : 0930 Hrs to 1300 Hrs (Online Mode)

INTRODUCTION

This course is structured with an introduction to elements of Gear box and more focused towards Industrial applications. Introduction to types of gears, gear profiles, gear calculations, gear standards being a part of the curriculum. Introduction to design input for gearbox design, conceptualization gear layout, sizing of gears and shafts, calculations on gears, bearing selection, seals, keys and standard parts used in gear box. Part modelling, assembly modelling and detailed drawing using popular design CAD tools will be carried out as a project. DFM and DFMA will be a key points addressed in the training.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organising a 5 days online programme on **"Design of Gearbox– Industrial Machinery"**

FOCUS AREAS

- Introduction to Gear box and their advantages and disadvantages over other drives.
- Types of Gear boxes and Applications.
- Types of Gears and general features.
- Nomenclature of Spur and helical gears.
- Gear design and strength calculations.
- Gear Correction factor, Gear Tooth Action
- Worm Gears and their terminology
- Bevel gears and their terminology.
- General design concepts for shaft, Keys and circlips.
- Design of Gear Box- Project.
- Selection of type of gear box.
- Type of gears and stages of reduction.
- Motor selection.
- Gear sizing and strength calculations.
- Estimation of Gear forces.
- Shaft and shaft strength calculation/sizing.

KEY TAKE AWAYS

- Complete knowledge on gearbox design
- Selection of motor for gear box
- Gears and gear design
- Shaft design and sizing
- Gear box design and sizing
- Manufacturing drawings of gears and shafts
- Systematic design approach

FEE PER PARTICIPANT (PER LOGIN)

Rs. 10000/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ IMTMA Non Members/ Others

USD 300/-
Overseas Participants

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.

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