Manufacturing Technology Training
An IMTMA initiative

Antifriction Bearings - Selection, Applications and Evaluating Bearing Life
Date : 29 to 30 April, 2021
Time : 1400 Hrs to 1700 Hrs (Online Mode)

INTRODUCTION

Antifriction bearings are precision mechanical elements in any machines and equipment for reliable functioning of rotary motions. It defines the speed, magnitude and direction of the loads, deflections and minimal vibration of the shaft with pre estimated life. Lack of bearing awareness can lead to premature bearing failures, unexpected machine breakdowns and loss of production. The basic knowledge about bearings can avoid these losses and bring in huge savings & benefits to the organisations. Roles of antifriction ball or roller bearings in machine tool spindles are highly responsible in overall performance as the machine as they reproductive in nature. The type, accuracy and size are the key feature in selection and unless otherwise not selected appropriately for the said application, the product would fail in meeting the performance requirements which is set as objective. Knowledge on the types of bearings, accuracy of the bearings, pre loads of the bearings for machine tool spindle application is very essential for designers and assembly engineers.

Keeping this in view, IMTMA is organising an online training on **"Antifriction Bearings - Selection, Applications & Evaluating Bearing Life".**

FOCUS AREAS

- Fundamentals of antifriction bearings,
- Types of bearings – Features & Benefits
- Selection considerations of bearings
- Bearing identifications – Part numbering system
- Right methods of mounting and dismounting of bearings
- Bearings for machine tool spindles
- Bearing mounting methods and their advantages
- Stiffness enhancement through bearings pre load – Fundamentals
- Advantages of different pre loads
- Causes of excessive pre load
- Spindle bearing lubrications
- Bearings application in Machine Tool Spindles
- Spindle stiffness calculation and role of bearings
- Condition monitoring of bearings and measurements in machine tool spindles.
- Benefits of condition monitoring.

KEY TAKE AWAYS

- Enhanced knowledge about various bearing types and their application details
- Understanding of bearing numbering system helps to procure the right bearings
- Proper handling of bearings to prevent early failures and increase bearing service life
- Better understanding of lubrication to avoid premature bearing failures
- Spindle optimization through right bearings selection and installation
- How to enhance the rigidity of spindles and rigidity of machine tools
- Distinguishing between the roller and ball bearings with justification.

FEE PER PARTICIPANT (PER LOGIN)

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

USD 135/-
Overseas Participants

FACULTY

This program will be conducted by **Mr. Hanumanth Kulkarni** and **Mr. HV Rajashekara.**

Mr. Hanumanth Kulkarni comes with over 34 years of rich experience in bearing industry. Having associated with SKF, Timken, FAG and NBC, Mr. Hanumanth Kulkarni brings in expertise in the areas of Design & Development, Manufacturing, Application Engineering and Technical training.
Presently he is running his own company in training and consultancy services.

Mr. HV Rajashekara, Advisor IMTMA has 28 years' experience on Design and Development of Metal cutting machines from various industry like M/s HMT Machine Tools, M/s Johnson Electric International Limited, HongKong and 7 years as Senior Director, IMTMA Design Institute. He has overall experience of 35 Years from both shop floor and training.

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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.