# 

Making the most out of your investment in training by further enhance your knowledge on bearing applications. There is always a way we had for you to improve your knowledge and your plant's maintenance strategy.

#### **COURSE OBJECTIVE**

As a subsequent course of Bearing Maintenance & Application - General (EL01), the Advance Level course focuses more details in bearing manufacturing technology and processes, bearing expectancy life calculation, selection of shaft / housing fitting tolerance, internal clearance setting, bearing arrangement and lubricant replenish period.

#### **BENEFITS**

- End users can choose a bearing more wisely with better understanding on manufacturing technology and specifications
- Machine makers and designers are able to estimates the service life of the bearings within their machines with the life calculation
- Preventing bearings from failing prematurely with correct selection of fittings and setting of internal clearance

#### WHO SHOULD ATTEND

Recommended for engineers and personal that have experience working with bearings on the field or involved in bearing selection for machines design and maintenance planning.



# **PRE-REQUISITE**

Bearing Maintenance & Application – General (EL01)

# **COURSE MATERIALS**

Comprehensive notes and collection of calculation examples

#### **COURSE DURATION**

2 DAYS

# **CANCELLATION POLICY**

If notice of withdrawal is given in writing - 14 calendar days before the course date, 80% of the course fee will be refunded. A 50% refund will be made for cancellation received in writing – 7 calendar days before the course date. After which, NO REFUND will be entertained.

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# **COURSE TOPICS**

#### Lesson 1

# **Bearing Specification & Selection**

- Bearing manufacturing technology
- Dynamic & fatigue load
- Internal geometry and designs
- Reference & limiting speed
- Dimensions tolerance
- Internal clearance class
- Special applications (i.e. high speed, vibration)

# Lesson 2 Life Calculation

- What is L<sub>10</sub>?
- How is L<sub>10</sub> developed?
- Factors to be consider in L<sub>10</sub> calculation
- Adjusted Life Calculation
- Bearing Life Calculation Example

# Lesson 3 Fitting Tolerance Selection

- Type of loads
- Magnitude of loads
- Direction of loads
- Type of applications
- Type of fitting tolerances
- Fitting tolerance selection & calculation

#### Lesson 4

#### **Bearing Internal Clearance**

- What is bearing internal clearance?
- Thermal & fitting expansion
- Measuring internal clearance on different type of bearings
- Radial internal reduction calculation



# Lesson 5 Bearing Orientation

- Locating & non locating
- Why bearings need to be locate?
- Applications

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# REGISTRATION



1 <sup>st</sup> Delegate Name:		
Job Title / Department:		
Telephone:	Fax:	
Email:		
2 <sup>ND</sup> Delegate Name:		
Job Title / Department:		
Telephone:	Fax:	
Email:		
3 <sup>RD</sup> Delegate Name:		
Job Title / Department:		
Telephone:	Fax:	
Email:		
APPROVED BY:		
Job Title / Department:		
Telephone:	Fax:	
Email:		
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Address:		)

# 2 easy ways to Register



(603) 4047 3465 Complete and fax this registration form



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