

# GAS TURBINE MECHANICAL MAINTENANCE (3DAYS)

## Course Objectives

The objective of this course is to allow the attendee a detailed understanding of the mechanical maintenance activities associated with Gas Turbines.

## Course Description

This course is an ideal course for those engineers/technicians wishing to gain a more detailed understanding of the mechanical design and maintenance activities associated with Gas Turbines. Together with a detailed examination of the major systems of a Gas Turbine this course also discusses the different maintenance approaches along with a description of the mechanical aspects of the typical Gas Turbine Inspections. Presenting this course at our Masood John Brown Gas Turbine Maintenance/Repair facility will allow attendees to see practical examples of Gas Turbine Components, types of component faults and associated repair techniques.

## Who Should Attend

The primary function of this five-day course is to allow the attendee a detailed understanding of the mechanical maintenance activities associated with Gas Turbines. Therefore this course is targeted at technicians and engineers involved in the mechanical maintenance activities of Gas Turbines. Experienced engineers and maintenance specialists will also benefit from attending this course, as will those managers concerned with the maintenance scheduling and repair aspects of Gas Turbines.

## Pre-Requisites

All Attendees should have a sound power generation background.

## Course Outcome

At the end of this course you will be able to describe the systems associated with a Modern Gas Turbine.

## Course Outline

### Day 1

- Introduction
- Gas Turbine Components
- Major Components of a Gas Turbine
- Major Accessory Components of a Gas Turbine
- Maintenance of Gas Turbine Systems
- Lube Oil System Description/Maintenance
- Hydraulic Oil System Description/Maintenance
- Fuel Systems Description/Maintenance
- Starting Systems Description/Maintenance
- Cooling and Sealing Air Description/Maintenance
- Additional Systems Description/Maintenance
- Routine Inspections/Inspection Scheduling

### Day 2

- Combustion Inspection
- Disassembly/Reassembly Procedures
- Inspection Procedures
- Criteria for re-use
- Repair or Replacement
- Hot Gas Path Inspection
- Disassembly/Reassembly Procedures
- Inspection Procedures
- Criteria for re-use
- Repair or Replacement

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## Day 3

Major Inspection  
Disassembly/Reassembly Procedures  
Alignment Checks  
Inspection of Bearings/Seals and Journals  
Evaluation of Maintenance Techniques  
Breakdown Maintenance  
Scheduled Maintenance  
Preventative Maintenance  
Factors affecting Component Lifespan  
Component Repair and Repair Technology