London TDM

Engineering and Technical Skills Training Courses

Course Venue: United Kingdom - London

Course Date: From 26 April 2026 To 30 April 2026

Course Place: London Paddington

Course Fees: 7,500 USD

Introduction

This 5-day professional course is designed to offer in-depth knowledge and practical skills in hydraulic and pneumatic systems. The course aims to equip participants with the necessary expertise to handle, operate, and maintain these systems effectively in various industrial settings.

Objectives

- Understand the fundamental principles of hydraulic and pneumatic systems.
- Identify key components and their functions within these systems.
- Develop skills to design, analyze, and troubleshoot hydraulic and pneumatic circuits.
- Gain hands-on experience with equipment and tools used in the industry.
- Implement safety measures and best practices in handling these systems.

Course Outlines

Day 1: Introduction to Hydraulic and Pneumatic Systems

- Overview of Fluid Power Systems
- Basic Concepts of Hydraulics and Pneumatics
- Comparison between Hydraulic and Pneumatic Systems
- Applications in Various Industries
- Introduction to Course Tools and Equipment

Day 2: Components and Functions

- Pumps, Compressors, and Motors
- Valves: Directional, Pressure, and Flow Control
- Actuators: Cylinders and Rotary Actuators
- Understanding Hydraulic Fluids and Air Treatment
- System Configurations and Components Interactions

Day 3: Hydraulic Systems Design and Analysis

- System Design Principles and Calculations
- Reading and Creating Hydraulic Schematics
- Circuit Design: Open and Closed-loop Systems
- Efficiency Considerations in Hydraulic Systems
- Hands-on Design Workshop

Day 4: Pneumatic Systems Design and Applications

- Fundamentals of Pneumatic Systems Design
- Circuit Symbols and Diagrams Interpretation
- Applications of Pneumatics in Automation and Control
- Designing Energy-efficient Pneumatic Systems
- Pneumatic System Design Exercise

Day 5: Troubleshooting, Maintenance, and Safety

- Common Troubleshooting Techniques
- Maintenance Procedures for System Longevity
- Implementing Safety Protocols in Operations
- Case Studies and Real-world Problem-Solving
- Course Review and Feedback Session