

API 510 □ Pressure Vessels Inspection Program

Amsterdam (Netherlands)

9 - 20 November 2026

UK Training

PARTNER



API 510 – Pressure Vessels Inspection Program

Code: OG32 From: 9 - 20 November 2026 City: Amsterdam (Netherlands) Fees: 10600 Pound

Introduction

The API 510–Pressure Vessels Inspection Program is a specialized professional course designed to develop advanced inspection and evaluation capabilities for pressure vessels used in industrial facilities.

The program focuses on enabling participants to apply recognized inspection principles, assess vessel integrity, and support safe and reliable operation.

It is intended for engineers, inspectors, maintenance professionals, and technical supervisors who are responsible for pressure equipment integrity and compliance.

The course delivers practical knowledge aligned with inspection standards, damage mechanisms, and decision-making processes.

By completing this program, participants strengthen their ability to manage pressure vessel inspections effectively and contribute to operational reliability.

Course Objectives

This program aims to build technical competence and inspection confidence for pressure vessel professionals.

Upon completion, participants will be able to:

- Understand pressure vessel fundamentals and operating principles.
- Apply inspection requirements and acceptance criteria correctly.
- Perform visual and technical inspections in a structured manner.
- Identify common damage and deterioration mechanisms.
- Evaluate vessel fitness for continued service.
- Calculate corrosion rates and remaining life.
- Prepare accurate and professional inspection reports.
- Support maintenance, repair, and replacement decisions.

Course Outlines

Day One: Pressure Vessel Fundamentals

- Definition and classification of pressure vessels.
- Main components and operating conditions.
- Design pressure and temperature concepts.
- Overview of inspection responsibilities.
- Introduction to inspection standards.
- Discussion of basic inspection scenarios.



Day Two: Design and Materials

- Pressure vessel design principles.
- Common construction materials.
- Material properties and service limitations.
- Welding considerations and joint efficiency.
- Review of design documentation.
- Practical examples of material selection.

Day Three: Damage Mechanisms

- Internal and external corrosion types.
- Stress-related damage mechanisms.
- Cracking, deformation, and blistering.
- Environmental and process influences.
- Early warning signs of failure.
- Case study analysis.

Day Four: Visual Inspection

- Visual inspection requirements and scope.
- Inspection tools and access methods.
- Identification of visible defects.
- Evaluation of surface condition.
- Recording inspection findings.
- Practical inspection exercises.

Day Five: Non-Destructive Examination

- Principles of non-destructive examination.
- Common examination techniques.
- Selection of appropriate methods.
- Interpretation of examination results.
- Limitations and reliability of techniques.
- Practical application examples.

Day Six: Thickness and Corrosion Calculations

- Thickness measurement techniques.
- Minimum allowable thickness determination.
- Corrosion rate calculation.
- Remaining life estimation.
- Data analysis and verification.
- Calculation exercises.

Day Seven: Fitness-for-Service Evaluation

- Acceptance criteria for pressure vessels.
- Fitness-for-service concepts.



- Risk-based decision making.
- Repair versus replacement assessment.
- Documentation of technical decisions.
- Scenario-based discussions.

Day Eight: Repairs and Alterations

- Types of approved repairs.
- Repair planning requirements.
- Quality control during repairs.
- Post-repair inspection requirements.
- Return-to-service conditions.
- Repair case examples.

Day Nine: Reporting and Documentation

- Inspection report structure.
- Clear and accurate technical writing.
- Documentation of inspection results.
- Record retention practices.
- Compliance documentation.
- Review of sample reports.

Day Ten: Review and Final Evaluation

- Comprehensive review of course content.
- Technical discussion and clarification.
- Integrated inspection case studies.
- Final knowledge assessment.
- Practical evaluation exercises.
- Key learning outcomes summary.

Why Attend This Course: Wins & Losses!

- Strengthens technical inspection expertise.
- Improves pressure vessel assessment accuracy.
- Enhances decision-making based on standards.
- Reduces risk of equipment failure.
- Supports maintenance planning.
- Improves inspection documentation quality.
- Develops professional inspection confidence.
- Supports career advancement in inspection roles.

Conclusion

The API 510 Pressure Vessels Inspection Program provides a structured and professional pathway for developing advanced inspection capabilities. It balances theoretical understanding with practical application to support accurate vessel assessment and integrity management.





Participants gain the skills needed to evaluate pressure vessels, support safe operation, and contribute to effective maintenance strategies. The program enhances technical competence while reinforcing disciplined inspection practices. As a result, professionals completing this course are better equipped to manage pressure vessel integrity throughout their operational lifecycle.

Head Office: +44 7480 775 526
Email: Sales@blackbird-training.com
Website: www.blackbird-training.com

UK Training

PARTNER



Blackbird Training Clients



MANNAI Trading
Company WLL,
Qatar



Alumina Corporation
Guinea



Booking.com
Netherlands



Oxfam GB International
Organization,
Yemen



Capital Markets
Authority,
Kuwait



Waltersmith Petroman Oil Limited
Nigeria



Qatar National Bank
(QNB),
Qatar



Qatar Foundation,
Qatar



AFRICAN UNION ADVISORY
BOARD ON CORRUPTION,
Tanzania



KFAS
Kuwait



Reserve Bank of
Malawi,
Malawi



Central Bank of Nigeria
Nigeria



Ministry of Interior,
KSA



Mabruk Oil Company
Libya



Saudi Electricity
Company,
KSA



BADAN PENGELOLA
KEUANGAN Haji,
Indonesia



NATO
Italy



ENI CORPORATE
UNIVERSITY,
Italy



Gulf Bank
Kuwait



General Organization for
Social Insurance
KSA



Defence Space Administration
Nigeria



National Industries
Group (Holding),
Kuwait



Hamad Medical
Corporation,
Qatar



USAID
Pakistan



STC Solutions,
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS
UN.



Authority for
Electricity Regulation, Oman

UK Training
PARTNER



Blackbird Training Categories

Management & Admin

Entertainment & Leisure
Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Artificial Intelligence (AI)
Sustainability, ESG & Corporate Responsibility
Advanced Courses
Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training

