MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

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FLEXIBLE PIPE ENGINEERING – DESIGN, MATERIALS, MANUFACTURE AND INSTALLATION

"Mastering the Engineering, Selection, and Installation of Flexible Pipe Systems"

Schedule

Date	Venue	Fees (Face-to-Face)
06 – 10 Jul 2026	London, UK	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

This intensive 5-day course provides in-depth knowledge of flexible pipe engineering, covering the complete lifecycle from design, material selection, manufacturing processes, to installation practices. Participants will gain hands-on understanding of how to ensure system integrity, performance, and longevity in offshore and onshore applications.

The course equips engineers and technical professionals with the skills to evaluate flexible pipe solutions, understand industry standards, and apply best practices for safe and cost-effective pipeline projects.

Objectives

By the end of this course, participants will be able to:

- Understand the design principles and material selection criteria for flexible pipes
- Analyze manufacturing processes and quality control measures
- Apply best practices for flexible pipe installation, operation, and maintenance
- Identify common failure modes and mitigation strategies
- Ensure compliance with international standards and specifications

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Why Attend

- Gain expert insights into flexible pipe technologies and their applications
- Learn from real-world case studies and practical examples
- Enhance your ability to evaluate and select the right flexible pipe systems
- Build confidence in addressing technical challenges during project execution
- Network with peers and industry professionals

Target Audience

This program is designed for:

- Pipeline engineers and designers
- Offshore and subsea engineers
- Project managers and technical leads
- Quality assurance and inspection personnel
- Maintenance and operations engineers

Individual Benefits

Key competencies that will be developed include:

- Deep understanding of flexible pipe technology and performance
- Ability to perform technical evaluations and risk assessments
- Enhanced problem-solving skills for pipeline challenges
- Familiarity with the latest industry trends and innovations

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved project outcomes through better design and material decisions
- Reduced risk of operational failures and downtime
- Strengthened compliance with safety and quality standards
- Enhanced team capabilities in managing flexible pipe projects

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Deep dive into flexible pipe design, materials, and installation techniques
- Case Studies – Real-world examples of flexible pipe projects and lessons learned
- Workshops – Hands-on exercises in pipe selection, failure analysis, and installation planning
- Peer Exchange – Group discussions on industry challenges and solutions
- Tools – Checklists, templates, and design aids for flexible pipe engineering

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Course Outline

Detailed 5-Day Course Outline Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Introduction to Flexible Pipe Engineering

- Module 1: Overview of Flexible Pipe Systems (07:30 – 09:30)
- Introduction to flexible pipe applications and advantages
- Key components and material characteristics
- Industry standards and regulatory requirements
- Module 2: Design Principles and Considerations (09:45 – 11:15)
- Load conditions and stress analysis
- Dynamic performance and fatigue resistance
- Compatibility with transported fluids and environments
- Module 3: Material Selection and Qualification (12:00 – 01:00)
- Polymer, metal, and composite material options
- Qualification testing and certification
- Impact of material choices on lifespan and performance

Day 2: Manufacturing and Quality Control

- Module 4: Manufacturing Processes (07:30 – 09:30)
- Production steps and assembly methods
- Quality assurance practices during manufacturing
- Inspection and testing protocols
- Module 5: Failure Modes and Risk Mitigation (09:45 – 11:15)
- Common failure mechanisms in flexible pipes
- Risk assessment techniques
- Preventive measures and design improvements
- Module 6: Installation Planning (12:00 – 01:00)
- Pre-installation checks and logistics
- Installation methods for offshore and onshore applications
- Managing environmental and operational constraints

Day 3: Operational Considerations

- Module 7: Operational Monitoring (07:30 – 09:30)
- Inspection and monitoring during service
- Data collection and analysis
- Performance optimization techniques
- Module 8: Maintenance and Repair Strategies (09:45 – 11:15)
- Scheduled maintenance practices
- Emergency repairs and interventions
- Life extension approaches
- Module 9: Cost and Lifecycle Analysis (12:00 – 01:00)
- Total cost of ownership considerations
- Lifecycle assessment models
- Balancing cost, risk, and performance

Day 4: Case Studies and Best Practices

- Module 10: Case Study: Offshore Flexible Pipe Systems (07:30 – 09:30)
- Lessons learned from major offshore projects
- Key success factors and challenges
- Application of standards and innovations
- Module 11: Case Study: Onshore Flexible Pipe Applications (09:45 – 11:15)
- Best practices in onshore installations
- Managing soil and environmental impacts
- Performance data and analysis
- Module 12: Innovations and Future Trends (12:00 – 01:00)
- Emerging technologies in flexible pipe engineering
- Sustainability and environmental considerations
- Future industry directions

Day 5: Integration and Application

- Module 13: Integrated Project Planning (07:30 – 09:30)
- Aligning design, materials, and installation strategies
- Cross-disciplinary coordination
- Managing stakeholder expectations
- Module 14: Workshop: Developing a Flexible Pipe Project Plan (09:45 – 11:15)
- Group exercise: Create a project plan
- Risk assessment and mitigation strategies
- Presentation and feedback session
- Module 15: Final Review and Wrap-Up (12:00 – 01:00)
- Review of key learning points
- Open Q&A and discussion
- Course summary and closing

Certification

Participants will receive a Certificate of Completion in Flexible Pipe Engineering, validating their expertise in flexible pipe design, material selection, manufacturing, and installation best practices.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**