

BLAST CLEANING AND SURFACE TREATMENT

"Enhancing Surface Preparation for Optimal Coating and Corrosion Protection"

Schedule

Date	Venue	Fees (Face-to-Face)
07 - 11 Sep 2026	Istanbul, Turkey	USD 3495 per delegate

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

Introduction

Blast cleaning and surface treatment are fundamental processes in industries requiring durable, high-performance coatings, particularly in the oil and gas, maritime, and infrastructure sectors. This 5-day training course will provide participants with the knowledge and hands-on experience needed to understand and apply various surface preparation techniques, including abrasive blasting, grit blasting, and mechanical cleaning.

Through a combination of theoretical sessions and practical demonstrations, participants will learn the principles, equipment, and safety standards involved in effective blast cleaning. The course also covers troubleshooting, maintenance, and performance standards for surface treatments, ensuring optimal results for coating applications.

Objectives

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

- Understand the principles and objectives of blast cleaning and surface treatment.
- Identify different surface preparation methods and their applications.
- Use various equipment and materials for abrasive blasting and surface cleaning.
- Ensure compliance with health, safety, and environmental regulations during surface preparation.
- Assess the quality of prepared surfaces and troubleshoot common issues.
- Integrate surface treatment techniques into coating and corrosion protection strategies.

Why Attend

- Master the essential techniques for surface preparation in corrosion protection.
- Improve the quality and longevity of coatings through proper surface cleaning.
- Learn to troubleshoot and avoid common blasting and surface treatment issues.
- Stay up-to-date with industry standards and regulations.
- Enhance safety practices and reduce risks associated with surface treatment processes.

Target Audience

This program is designed for:

- Coating and corrosion engineers
- Maintenance and operations personnel
- Quality control inspectors
- Health, safety, and environmental managers
- Project engineers and contractors involved in surface preparation
- Anyone responsible for or interested in the application of surface treatment techniques

Individual Benefits

Key competencies that will be developed include:

- Knowledge of best practices in abrasive blasting and surface treatment
- Enhanced ability to choose the right preparation method for various substrates
- Improved understanding of surface cleanliness standards and inspection techniques
- Stronger focus on maintaining health and safety during cleaning operations
- Mastery of troubleshooting methods for common surface preparation challenges

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Better surface preparation, leading to longer-lasting coatings and corrosion resistance
- Higher quality standards for coating applications across projects
- Reduced rework and maintenance costs due to proper surface treatment
- Enhanced safety and compliance with environmental regulations
- Improved project delivery with better-defined cleaning processes and standards

Instructional Methodology

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

- Strategy Briefings – Core principles of surface preparation, equipment use, and industry standards
- Case Studies – Real-world examples of successful and failed surface treatment projects
- Workshops – Hands-on practice in abrasive blasting and surface inspection
- Peer Exchange – Group discussions on cleaning techniques and common project challenges
- Tools – Surface inspection checklists, cleaning performance standards, and equipment maintenance guides

MAWA EVENTS

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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 Surface Treatment and Blast Cleaning

- Module 1: Fundamentals of Blast Cleaning (07:30 – 09:30) ● What is blast cleaning and why it is essential for surface preparation ● Types of surface treatment methods: Abrasive blasting, mechanical cleaning, chemical treatments ● Overview of blast cleaning materials and their applications
- Module 2: Equipment and Tools for Blast Cleaning (09:45 – 11:15) ● Types of blast cleaning equipment: sandblasters, shot blasters, vacuum blasters ● Choosing the right abrasives for different applications ● Safety features and operational best practices
- Module 3: Surface Cleanliness Standards (11:30 – 01:00) ● International standards for surface cleanliness (SSPC, ISO, NACE) ● How to evaluate surface cleanliness before coating ● Visual and mechanical methods of surface inspection
- Module 4: Health, Safety, and Environmental Considerations (02:00 – 03:30) ● Health and safety risks associated with blast cleaning ● Personal protective equipment (PPE) and safe operating procedures ● Environmental impact and waste management during surface preparation

Day 2: Abrasive Blasting Techniques

- Module 1: Types of Abrasive Blasting (07:30 – 09:30) ● Dry abrasive blasting vs. wet abrasive blasting ● Surface profile and roughness measurements ● Choosing the appropriate abrasive media (sand, glass beads, steel grit, etc.)
- Module 2: Optimizing Abrasive Blasting (09:45 – 11:15) ● Best practices for efficient abrasive blasting ● Adjusting pressure and blast angle for uniform results ● Troubleshooting common abrasive blasting issues (dusting, coating adhesion)
- Module 3: Workshop – Abrasive Blasting Demonstration (11:30 – 01:00) ● Hands-on practice with various abrasive blasting equipment ● Evaluating the effectiveness of abrasive blasting on different materials ● Group discussion on experiences and challenges
- Module 4: Surface Inspection After Blasting (02:00 – 03:30) ● Methods for inspecting blasted surfaces ● Using surface profile gauges and microscopes ● Ensuring compliance with cleanliness and roughness standards

Day 3: Mechanical Surface Treatment

- Module 1: Mechanical Cleaning Methods (07:30 – 09:30) ● Techniques: wire brushing, grinding, needle scaling ● Comparison with abrasive blasting and when to use mechanical cleaning ● Benefits and limitations of mechanical surface treatments
- Module 2: Surface Treatment for Corrosion Prevention (09:45 – 11:15) ● Coating applications after mechanical cleaning ● Surface priming and corrosion resistance ● Strategies for long-term surface protection
- Module 3: Workshop – Mechanical Surface Treatment (11:30 – 01:00) ● Hands-on practice with wire brushes, grinders, and needle scalers ● Evaluating surface preparation effectiveness for corrosion protection ● Group review and feedback on techniques
- Module 4: Maintenance and Troubleshooting (02:00 – 03:30) ● Common issues in mechanical surface treatment and how to avoid them ● Best practices for tool and equipment maintenance ● Preventing defects in coating adhesion and surface quality

Day 4: Advanced Techniques and Industry Applications

- Module 1: Specialized Surface Preparation for Different Materials (07:30 – 09:30) ● Surface treatment for steel, concrete, and other materials ● Dealing with contamination and difficult-to-clean substrates ● Advanced techniques: ultra-high pressure water jetting, laser cleaning
- Module 2: Surface Treatment in Specific Industries (09:45 – 11:15) ● Oil & gas, maritime, and industrial applications ● Standards and regulations for surface treatment in critical industries ● Case studies of successful projects in demanding environments
- Module 3: Workshop – Industry-Specific Surface Preparation (11:30 – 01:00) ● Applying techniques to real-world industry scenarios ● Problem-solving in complex projects ● Group work on designing surface treatment plans for various sectors
- Module 4: Optimizing Surface Treatment for Coatings (02:00 – 03:30) ● Choosing the best surface treatment for coatings ● Surface preparation for epoxy, polyurethane, and other coatings ● Post-treatment inspection and coating application best practices

Day 5: Final Simulation and Wrap-Up

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- Module 1: Simulation – Complete Surface Treatment Process (07:30 – 09:30) ● Full walkthrough of a surface preparation project ● Group involvement in planning, execution, and quality checks ● Reviewing and resolving potential challenges
- Module 2: Post-Treatment Coating Application (09:45 – 11:15) ● Final coating application following surface preparation ● Ensuring correct application conditions for optimal adhesion ● Troubleshooting common coating defects
- Module 3: Course Review and Q&A (11:30 – 01:00) ● Final Q&A session with expert instructors ● Recap of key takeaways from the course ● Personal and group reflections on lessons learned
- Module 4: Certification and Closing (02:00 – 03:30) ● Final assessment and feedback ● Certificate distribution ● Networking opportunities and course closing

Certification

Participants will receive a Certificate of Completion in Blast Cleaning and Surface Treatment, confirming their expertise in surface preparation techniques, health and safety standards, and effective coating practices.

Why Choose MAWA Events

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