

High-Pressure Water Jetting Safety Training Course

7 – 11 November 2027
Johannesburg

AGILE LEADERS
Training Center

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Ref: 1874_239914 **Date:** 7 – 11 November 2027 **Location:** Johannesburg **Fees:** 4500 Euro

Overview

High-Pressure Water Jetting Safety Training Course is a one-week foundation course for industrial cleaning, maintenance, shutdown, inspection, and HSE functions who leave with a Water Jetting Job Control Pack. Participants connect jetting hazards, equipment condition, reaction forces, work zones, permits, isolation, protective equipment, communication, emergency response, shutdown, and records. Activities use simulated plans and offline equipment inspections rather than live jetting. Agile Leaders Training Center presents high-pressure water jetting safety through controlled job decisions.

Who Should Attend

- Functions responsible for planning industrial cleaning and surface-preparation work
- Teams responsible for operating or supervising water-jetting equipment
- Personnel responsible for shutdown, maintenance, and isolation controls
- Inspection functions responsible for hoses, pumps, nozzles, and safety devices
- HSE teams responsible for permits, work zones, PPE, and emergency arrangements

The course assumes participants can follow permits, isolation procedures, equipment instructions, and site communication rules, and it leaves out live operation, operator authorization, medical treatment, and certification.

Departments and Industries

The course supports departments and industries that use high-pressure water for cleaning, maintenance, and surface preparation.

- Process plants, refineries, and utilities
- Manufacturing and industrial cleaning services
- Marine, construction, and infrastructure maintenance
- Shutdown, maintenance, inspection, and asset integrity departments
- Operations, contractor management, and HSE teams

Learning Objectives

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

- Analyze water-jetting hazards and exposure paths
- Compare pumps, hoses, nozzles, controls, and safety devices
- Build a permit, isolation, and exclusion-zone plan
- Apply pre-use inspection and communication controls
- Evaluate PPE and emergency-response arrangements
- Use shutdown, maintenance, and job-record controls

Course Agenda

Day 1: Jetting Hazards and Work Boundaries

- High-Pressure Water Jetting Task and Hazard Map
- Pressure, Flow, Jet Energy, and Exposure Path Model
- Injection, Impact, Hose Failure, and Debris Risk Register
- Industrial Cleaning and Surface-Preparation Boundary Sheet
- Water Jetting Job Control Pack Structure

Day 2: Equipment and Pre-Use Inspection

- Pump, Unloader, Relief, and Stop-Control Function Map
- High-Pressure Hose Rating and Damage Inspection Checklist
- Nozzle, Lance, Gun, and Trigger Device Selection Matrix
- Connection, Restraint, Guard, and Safety-Latch Verification Sheet
- Equipment Compatibility and Manufacturer Instruction Register

Day 3: Job Planning and Protective Controls

- Permit-to-Work and Task Risk Assessment Checklist
- Energy Isolation and Depressurization Sequence Map
- Exclusion Zone, Barrier, and Access-Control Layout
- Reaction Force and Operator Position Review Sheet
- PPE Selection and Limitation Assessment Matrix

Day 4: Operation, Emergencies, and Closeout

- Operator, Pump Controller, and Spotter Communication Protocol
- Start, Hold, Stop, and Pressure-Release Control Sequence
- Abnormal Condition and Emergency Shutdown Decision Card
- Injection Injury and Emergency Information Handover Record
- Post-Job Shutdown, Inspection, Maintenance, and Defect Log

Day 5: Water Jetting Safety Practice

- Exercise: Identify Hazards and Define Work Boundaries
- Exercise: Inspect a Simulated Hose and Nozzle Assembly
- Exercise: Build a Permit, Isolation, and Exclusion-Zone Plan
- Exercise: Respond to an Abnormal Pressure Event
- Capstone Exercise: Complete the Water Jetting Job Control Pack

Practical Exercises

The course uses suggested activities based on simulated jobs, offline equipment, photographs, and controlled records.

- Suggested activity: map jet, hose, debris, noise, surface, and access hazards for an industrial cleaning task
- Suggested activity: inspect pump controls, hoses, couplings, nozzles, restraints, triggers, and safety devices
- Suggested activity: prepare a permit, isolation, barrier, PPE, communication, and emergency-control set
- Suggested activity: document shutdown, depressurization, defect isolation, maintenance, and handover decisions

FAQs

Who suits high-pressure water jetting safety training, and what does it assume?

High-pressure water jetting safety training suits industrial cleaning, maintenance, shutdown, inspection, contractor, and HSE functions. It assumes participants can follow permits, isolation procedures, equipment instructions, and site communication rules.

How does high-pressure water jetting safety training differ from operator certification training?

High-pressure water jetting safety training develops hazard recognition, job planning, equipment inspection, and control-record skills. Operator certification training includes the practical operation and assessment requirements defined by its issuing body.

Why is depressurization critical in high-pressure water jetting?

Depressurization removes trapped jetting pressure before adjustment, disconnection, inspection, or maintenance. The responsible person should verify the approved stop, isolation, pressure-release, and zero-energy sequence before access.

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What should a high-pressure water jetting pre-use inspection check?

A pre-use inspection checks pump controls, pressure protection, hoses, couplings, restraints, lances, guns, triggers, nozzles, guards, safety latches, visible damage, compatibility, identification, and applicable manufacturer instructions.

How should a high-pressure water jetting work zone be controlled?

A controlled work zone defines jet and hose paths, barriers, access points, operator positions, reaction-force limits, communication roles, nearby work conflicts, emergency escape, and stop authority.

Conclusion

Participants take back a Water Jetting Job Control Pack linking hazards, equipment checks, permits, isolation, zones, PPE, communication, emergencies, and closeout records. The pack turns separate precautions into a traceable job-control sequence. It supports safer planning while site rules, manufacturer instructions, competent supervision, and authorized operating arrangements remain governing.