

# WJA Hydrodemolition Application Course Content

- 1 Registration & Introduction**
- 2 Review Key Safety Awareness Issues** (include only when presented as a 'Stand-Alone' Course)  
Nozzles & jets - pumps & ancillaries – pressure controls – water jetting hose – hazards & injuries – PPE – operational procedures.
- 3 Applications & Machines**  
Scope of hydrodemolition applications. Range of hydrodemolition tasks. Range of jetting machines suitable for hydrodemolition.
- 4 Jetting Equipment – Nozzles & Ancillaries**  
Review nozzle principles – fixed jet nozzles, abrasive cutting nozzles, nozzle life & wear characteristics, associated ancillary equipment including automatic & semi automatic.
- 5 Jetting Equipment – Water Jetting Hose**  
Hose used in hydrodemolition applications, damage & wear possibilities, hose ancillaries. Bore size & flow ratings.
- 6 Jetting Equipment – Machines**  
Range of jetting machines used - engine controls & instruments. Pump pressure controls, review dump/dry shut & selector/fail safe types, auto engine speed control systems, pressure safety relief. Water supply/delivery features – filtration requirements, boost feed pumps, built-in anti freeze provisions.
- 7 Job Assessment & Planning**  
Information & assessment – site location, access to work area & layout; material to be removed, work piece and task features, water provision, waste disposal hazards.  
Selection of equipment & manning levels – jetting machine/nozzles/accessories, number & duties of operators, single person operation. Determine job method, based on safe system of work.
- 8 Operational Procedures**  
Daily checks – manufacturers' instructions, other items requiring regular checks.  
Setting up – permits/authorisations, barriers & warning signs, positioning of machine, team duties & signals, flushing, leaks check, trial run.  
Monitoring of operation – flying debris, waste containment, work standard.  
Job completion – client inspection, waste removal, equipment decontamination, return site to safe condition.
- 9 Practical Exercises**  
Jetting machine & equipment – review features and demonstrate daily checks, start / run / stop.  
Job assessment – review & discuss – site location & constraints, accessibility, screening/extraction requirements. Work piece – nature of material & work to be carried out. Water supply – effluent drainage & waste disposal.  
Hazards & use of PPE. Discussion of options, agree job method.  
Site preparation – setting up work area. Team talk – review job method, signals, set up team(s). Positioning of jetting machine, layout & check equipment.  
Demonstrate all procedures to full group. For all teams, instruct each operator in each duty.  
Trainees carry out exercise – each team following instructions to set up, flush, check for leaks, carry out trial run, proceed with operation. Rotate team members through duties. Review at each rotation and final review.  
Disconnect equipment & clear site.
- 10 Summary**  
Review of course content as above, with opportunity for further discussion prior to Questionnaire.