



WATER JETTING ASSOCIATION



The Water Jetting Association (WJA) is a trade association representing contractors, manufacturers, hirers and other organisations that have a professional and commercial interest in all aspects of high-pressure water jetting.



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INTRODUCING THE WATER JETTING ASSOCIATION

The Water Jetting Association (WJA) is the UK-based trade association for businesses, agencies and individuals involved in the water jetting industry.

OUR MEMBERS INCLUDE:

- Water jetting contractors
- Equipment manufacturers
- Equipment sellers and maintainers
- Hire companies
- Training providers
- Organisations that use water jetting as part of their in-house business process
- International members

Our primary aim is to promote the highest possible safety and technical standards for all forms of water jetting, including ultra-high-pressure water jetting, high pressure water jetting, pressure washing, and drain and sewer cleaning.

The WJA is the UK's largest provider of water jetting training. We have developed internationally recognised Codes of Practice for water jetting that we seek to continuously update and improve. We are also committed to furthering our members' interests via commercial opportunities, regulatory representation, technical advice and brand association.

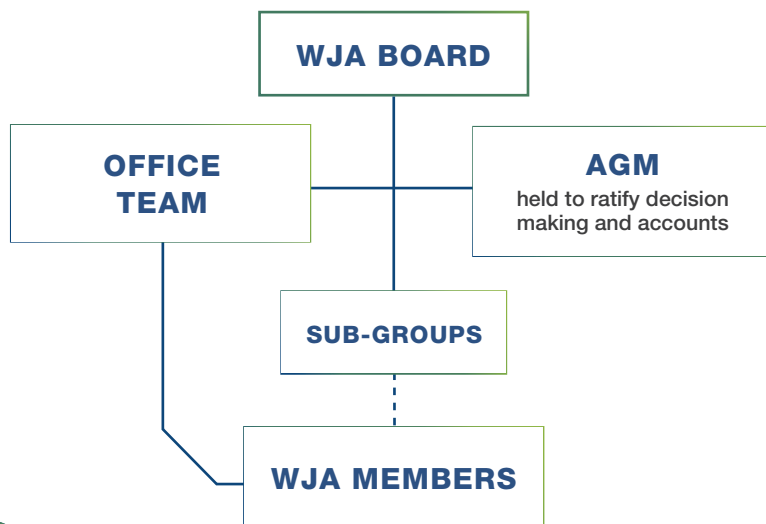
STRONG GOVERNANCE

The WJA's success is based upon a robust structure and strong governance. This ensures the association's work is carried out professionally to a high standard and that it is financially well managed.

Day-to-day operational matters are managed by a small operational team led by the WJA Director.

All key decisions are made by the WJA Board, advised by sub-groups. See [WJA Organisational Structure](#).

WJA STRUCTURE



WJA Audited Member Programme

The WJA audits water jetting contractor members (C1), drain and sewer cleaning contractor members (C2) and hirer members (C3) every three years against criteria informed by WJA codes of practice. Members who pass the audit can promote this achievement with a special logo.



The WJA was established in 1980 to represent the UK's water jetting industry. We also welcome international members and seek to work with like-minded organisations across the world.

WATER JETTING EXPLAINED

Water jetting is an industrial process using water delivered under pressure to clean, defoul or prepare surfaces. It is also used to cut materials and, through a process known as hydrodemolition, to remove material from an object. Abrasives can also be added to water jets to enhance cutting power.

Water jetting has become essential across many industries, including oil and petrochemicals, maritime, construction, water utilities and manufacturing.

Over the last 50 years, technology and expertise have advanced rapidly, allowing water jetting pressures to increase. This has expanded the range water jetting applications. It has also presented new challenges, not least in terms of health and safety.

Pressure	Water jetting activity <small>(as defined by wja training courses – see page 8)</small>
Up to 350 bar (5,000 psi)	Drain & sewer
Up to 350 bar (5,000 psi)	Drain, sewer & jetting gun
Above 350 bar (5,000 psi)	Drain, sewer & robotics
Above 275 bar (4,000 psi)	Surface preparation
Above 275 bar (4,000 psi)	Tube & pipe
Above 690 bar (10,000 psi)	Hydro demolition
Up to 275 bar (4,000psi) / 22 lpm	Pressure washing



Image Courtesy of
Flowplant Group Ltd

WATER JETTING – KEY USES

- ✓ Surface cleaning
- ✓ Surface preparation
- ✓ Ship hull defouling
- ✓ Industrial tube cleaning
- ✓ Concrete cutting and demolition
- ✓ Drain, sewer and tank cleaning

WATER JETTING – KEY BENEFITS

- ✓ Reduced vibration injury risk
- ✓ No dust pollution
- ✓ Reduced chemical use
- ✓ Reduced risk of structural damage
- ✓ Intrinsically safe
- ✓ Precision solution
- ✓ Deliverable in confined or remote space

PIONEERS FOR SAFE AND PRODUCTIVE WATER JETTING

The UK's water jetting industry is built on the efforts of a small band of pioneers, some of whom went on to play a key role in the creation of the WJA.

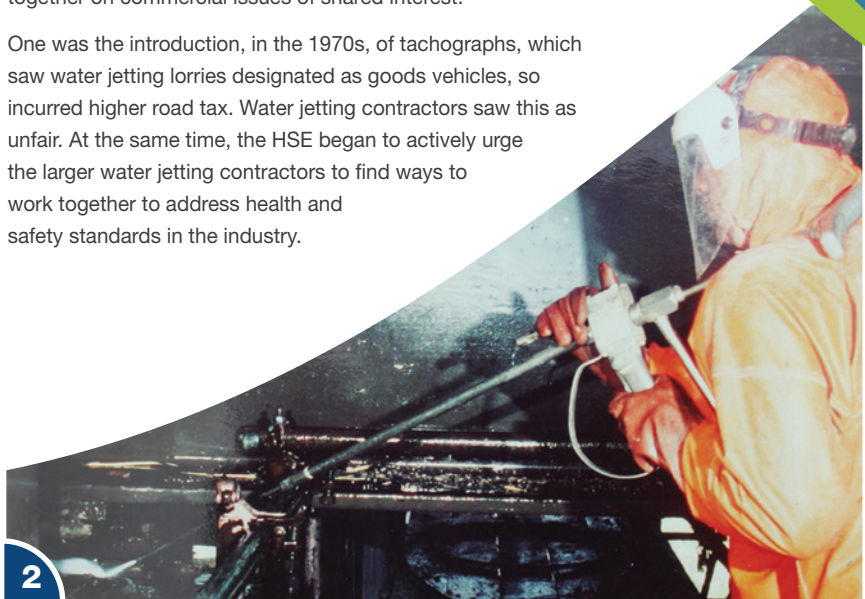
The growth of the petrochemical industry in the UK after World War Two fuelled demand for effective and intrinsically safe methods for cleaning pipes, production vessels and storage tanks.

Water jetting contractors sought to protect technical know-how and business advantages, limiting scope for cooperation. There was little by way of specific regulation and control.

This situation gradually changed during 1970s. Agencies like the UK's Health and Safety Executive (HSE) began to take an interest in safety issues related to water jetting.

Contractors began to see the benefits that would flow from cooperating to raise industry standards and working together on commercial issues of shared interest.

One was the introduction, in the 1970s, of tachographs, which saw water jetting lorries designated as goods vehicles, so incurred higher road tax. Water jetting contractors saw this as unfair. At the same time, the HSE began to actively urge the larger water jetting contractors to find ways to work together to address health and safety standards in the industry.



THE ASSOCIATION
 INAUGURATION DATE: 9TH OCTOBER, 1980
 NUMBER OF MEMBERS NOW: 21
 OFFICE BEARERS OF ASSOCIATION: PRESIDENT - MR. M.J. DONALDSON
 VICE-PRESIDENT - MR. J.F. WOODFORD

PERMANENT SENIOR OFFICIALS
 DIRECTOR: MR. A.M. LITTLEJOHN, B.SC., B.LITT.
 SECRETARY: MR. M. ANTHONY, C.ENG., F.R.I.N.A., M.I. MECH.E.
 ACCOUNTANT: MR. J.H. WINSTANLEY.

ADDRESS
 ASSOCIATION OF HIGH PRESSURE WATER JETTING CONTRACTORS,
 33, CATHERINE PLACE,
 LONDON,
 SW1E 6DY.
 TEL: 01-828-0933

AIMS OF THE ASSOCIATION
 (1) TO REPRESENT AND PROMOTE THE INTERESTS OF THE HIGH PRESSURE WATER JETTING CONTRACTORS;
 (11) TO PROVIDE FACILITIES FOR THE DISCUSSION OF PROBLEMS;
 (111) TO PROVIDE MEANS OF CO-OPERATION WITH OTHER ORGANISATIONS;
 (1111) TO ADVISE AND ASSIST MEMBERS WHERE DESIRABLE;
 TO PROMOTE, SUPPORT, OPPOSE OR INFLUENCE LEGISLATION;
 TO ENCOURAGE HIGH PRESSURE WATER JETTING CONTRACTORS TO USE A CODE OF SAFE PRACTICE;
 TO PROMOTE PROFESSIONALISM IN THE FIELD OF HIGH PRESSURE WATER JETTING; AND
 TO EMPLOY MEMBERS FOR HIGH PRESSURE WATER JETTING.



10 steps to water jetting excellence

1. A document formally recording the inauguration of the Association of High Pressure Water Jetting Contractors (AHPWJC) at a meeting held on 9th October 1980
2. An early example of hydrodemolition maintenance to release viaduct bearings on the M6 through Birmingham
3. An early high-pressure water jetting pump being fitted to a lorry chassis
4. Whitley Bay teenager wins a competition to design the AHPWJC's first logo
5. The logo was changed when the association changed its name to the WJA
6. Hydrodemolition remains vital for highway maintenance – this example on the M5 Oldbury viaduct in 2019
7. In 2023, the WJA allowed non-UK training providers and instructors to apply to deliver WJA training
8. Water jetting into the future – robotic technologies can make water jetting safer and more productive
9. In January 2024, the WJA launched a new app as part of its drive to digitise its services for members, all but eliminating its use of paper, saving resources, slashing costs and shrinking its carbon footprint.
10. In September 2024, the WJA hosted the UK's first major water jetting exhibition. The event at StoneX Stadium, London, was a success, and was repeated in 2025.



WJA
TRADE SHOW
2025



BIRTH OF THE WJA

Two key concerns – operational safety and the regulation of vehicles used by water jetting contractors – brought matters to a head in 1980.

Under the aegis of the British Hydraulics Research Association (BHRA), a series of meetings were held during that year. This led, in October 1980, to the foundation of the Association of High Pressure Water Jetting Contractors, the forerunner of the WJA. The first water jetting training courses were held in 1981 at the BHRA's laboratory at Cranfield University. The first Code of Practice was published in 1982 as an A5 document. Since then, the code, now the A4 Blue Code has been amended and revised multiple times and has been joined by two other codes of practice: the Red Code for drain and sewer cleaning, and the Purple Code for pressure washers – see page 12.

This reflects the WJA's determination to keep up with rapidly improving water jetting technology and its continued success in bringing together all parties in the industry.

This determination is increasingly recognised globally. Members of the WJA – water jetting contractors and training providers – deliver their services around the world.

The WJA's Codes of Practice are seen as setting standards to aspire to, because they have been created by an association led by the people who know the water jetting industry - the people who work in it.

TRAINING FOR SAFETY AND BUSINESS SUCCESS



Training is central to the WJA's goal of supporting high quality and safe water jetting. Many thousands of operatives in the UK and around the world attend our courses every year.

Our training is underpinned by our Codes of Practice. Courses are accredited by City & Guilds and, for our Level 2 Certificate, by ABBE. Every course also includes a process of formal candidate assessment.

All our courses are delivered by WJA-registered examination providers and WJA-approved coach/examiners. They are selected for their experience and expertise in water jetting and are regularly audited to ensure our training standards are maintained at a high level. The WJA also closely monitors delegate feedback, gathered at every training event.

Our courses are regularly reviewed and updated to ensure they are closely aligned with current practices and technology, latest health and safety regulations and new research.

WJA TRAINING – HOW IT WORKS

Our training is designed to give water jetting operatives a firm foundation for delivering safe service to a recognised and uniform standard and to support them in maintaining that standard throughout their careers.

The WJA operates a two-stage training process involving both theoretical and practical learning. This way, delegates learn the key principles of water jetting and get valuable hands-on experience under guidance from an experienced WJA coach/examiner.

First, delegates must pass our Safety Awareness course. This is a one-day class-based course that introduces delegates to the main concepts and issues relating to high pressure water jetting. They must then attend and pass at least one of our practical water jetting modules, which are also one-day courses.



Safety Awareness

Class-based

Practical modules (Ranking)



Drain and Sewer (DS)
Up to 350 bar (5,000 psi)



Drain, Sewer and Gun (DSG)
Up to 350 bar (5,000 psi)



Drain, Sewer and Robotics (DSR)
Above 350 bar (5,000 psi)
New course starting early 2026



Surface Preparation (SP)
Above 275 bar (4,000 psi)



Tube and Pipe Cleaning (TP)
Above 275 bar (4,000 psi)



Hydrodemolition (HD)
Above 690 bar (10,000 psi)

LOW
↓

↑
HIGH

WJA WATER JETTING CARD

All delegates who attend the WJA's Safety Awareness course and Practical Modules are assessed to ensure key learning objectives are achieved (see *Click to Assess – page 10*).

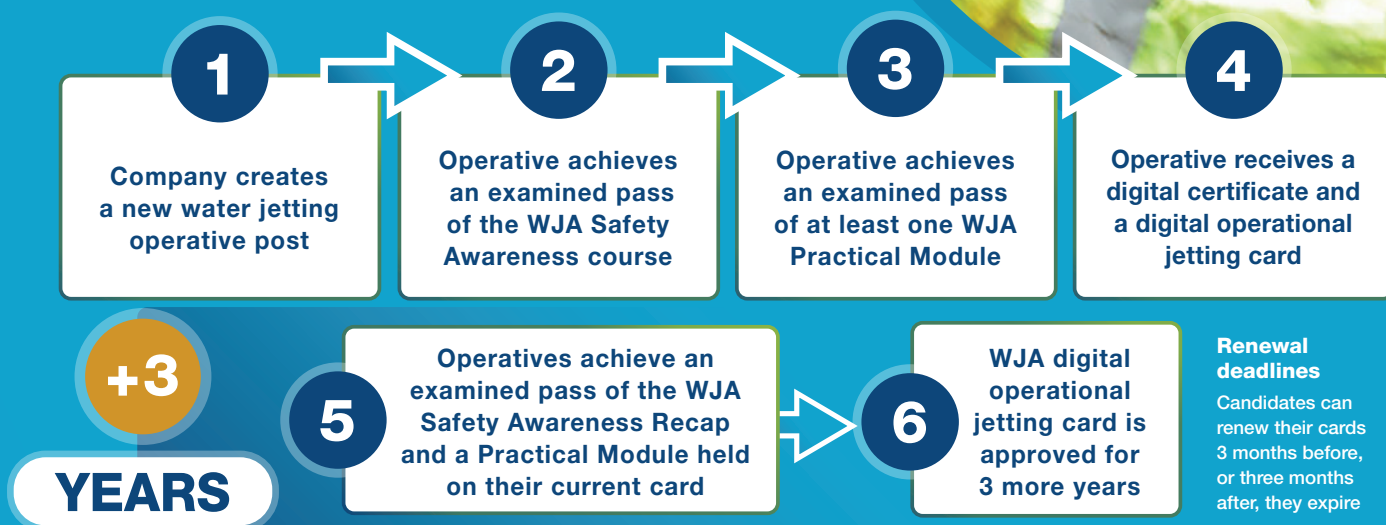
Those who achieve the 75 per cent pass mark in both courses are awarded a digital WJA operational jetting card. Their details are also added to the WJA database of water jetting operatives.

To retain their WJA training cards and registration, operatives must pass the Safety Awareness Refresher course, which includes a practical assessment, every three years. Practical Modules only have to be passed once (see *infographic*).

Contractors and service users can scan a QR code on training cards and certificates to instantly check the training status of operatives.



WJA TRAINING COURSE PROCESS



EXTRA OPTION - Level 2 Water Jetting Technician Certificate



Step 1: Complete at least two practical modules, including Surface Preparation

Step 2: Complete at least 122 hours of guided workplace assessment, supervised by a WJA assessor

Outcome: The WJA recognises successful candidates as competent water jetting operatives, who must then complete a Competent Safety Awareness refresher course every three years.

DIGITAL JETTING CARD ON WJA APP

Operatives who pass the WJA Safety Awareness course and at least one practical module receive digital certificates and digital operational jetting cards. Current course details can now be verified via the WJA app, or via a QR code on hard-copy jetting cards, issued on request.



WJA operational jetting card – QR codes provide access to course details and the WJA water jetting injury treatment algorithm

SAFETY AWARENESS

Course includes:

- **Applications and machines:** machine types, pressure and flow rates, configurations, categories.
- **Legislation and WJA codes of practice:** regulations, responsibilities, enforcement powers, risk assessment.
- **PPE:** effectiveness and limits, types of protection.
- **Jetting equipment:** nozzles, pumps, pressure controls, water jetting hoses.
- **Water jetting hazards and injuries:** water jet, operational regime, site environment and first aid.
- **Operational procedures:** site preparations, use of different equipment, non-standard equipment.



SAFETY AWARENESS CNC

The course is based on the WJA's Safety Awareness course to give CNC machine operators an effective introduction to water jetting applications and safety.

As part of the training process, the WJA approved instructor carries out a site visit to assess the equipment being used by course delegates.

PRACTICAL MODULES

Course includes:

- **Jetting equipment:** nozzles, jetting hoses, machines, controls, capabilities, damage and wear characteristics.
- **Assessment and planning:** risk assessment, SSoW, equipment selection, water provision, waste disposal.
- **Operational procedures:** setting up, daily checks, permits, job completion.
- **Practical exercise:** equipment set up, hazards and use of PPE, site preparation, team talk, signalling, personal instruction.



PRESSURE WASHING

The WJA pressure washing course is for people who are involved in the operation of pressure washing cleaning equipment.

It includes class-based instruction and practical assessment.

Successful delegates receive a WJA pressure washing card which must be renewed every three years by reattending the course.

Course includes:

- Introduction to surface preparation
- Pressure washer pumps
- Types of nozzles
- Health and safety
- PPE and safety devices
- Safe use of heat and chemicals

Operatives then attend the Pressure Washing Refresher course every 3 years to review knowledge and practical skills.

SAFETY AWARENESS REFRESHER

To retain their WJA training cards, water jetting operatives must attend the Safety Awareness Refresher course every three years.

Non-operational candidates (SA Only) are required to sit and pass the full Safety Awareness course. Operational candidates (SA plus module) are required to take the highest-ranking module on their card. If successfully completed, the candidates card will be extended by 3 years from the date of expiry.

Module ranking – Low to high DS – DSG – DSR – SP/TP – HD

CLICK TO EXAMINE

The WJA uses the CLiKAPAD digital response system to examine candidates attending City & Guilds courses.

Candidates use digital pads to respond to blocks of multiple choice questions that are set at intervals throughout the courses, focusing on specific topics. The WJA approved coach/examiner can see how questions are answered, so can go over topics again if necessary.

The system helps to counter concerns some candidates have about taking end-of-course written assessments. It also makes learning more interactive and enjoyable, and helps coach/examiners support candidates with different learning styles and abilities.

Paper examinations may be used if there is a CLiKAPAD failure.



CLiKAPAD



RAISING STANDARDS WJA CODES OF PRACTICE

The WJA is recognised for having developed perhaps the most detailed and advanced water jetting standards in the world.

These are laid out in three codes of practice. The first to be published, in 1982, was the 'Blue Code' for the use of high pressure and ultra high pressure water jetting equipment.

This was followed, in 2002, by the 'Red Code' for safe working and use of water jetting in drains and sewers. In 2024, the WJA also launched a new Pressure Washing Code of Practice – known as the Purple Code.

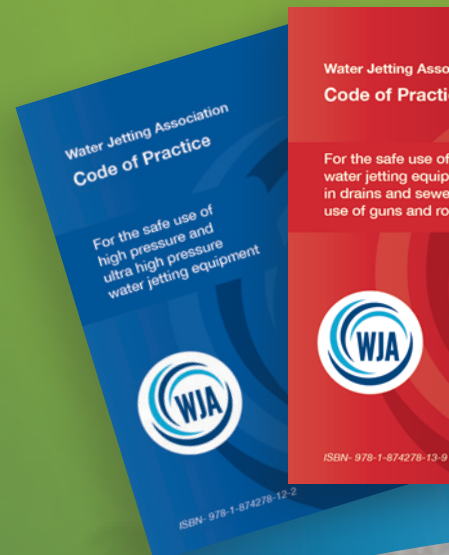
These codes underpin everything the WJA stands for, and directly inform the content of all our training courses. Their strength, from the very beginning, has been the way they are continuously improved and updated by WJA members, the experts in their field.

For example, in 2023, the Red Code was updated to include guidance on using a jetting gun for surface preparation. In 2025, it was updated again, to incorporate the use of robotic drain and sewer cleaning systems.

Our codes of practice are practical, robust and detailed. They act as a clear blueprint for delivering safe, high quality water jetting services.

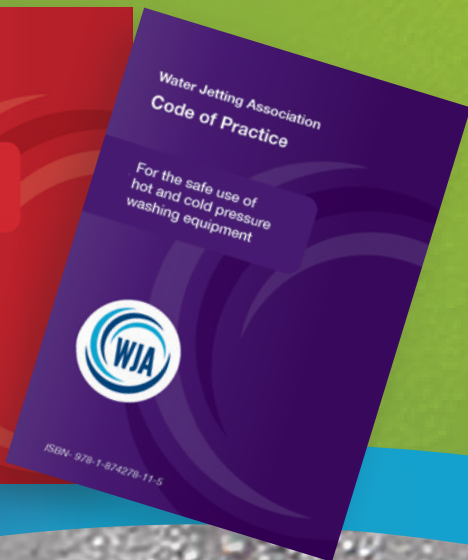
The codes are used by regulatory bodies, like the Health and Safety Executive, as a measure against which water jetting activity is judged.

Companies across the world have adopted the WJA codes of practice as their bible for the safe and effective use of water jetting.



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botics



TRANSFORMING THE EMERGENCY RESPONSE TO INJURY

Our priority is always to eliminate risk and to prevent untoward incidents, but you must be prepared if the worst does happen.

That is the principle behind the powerful water jetting injury treatment algorithm incorporated into the WJA's codes of practice.

7 bar (100psi)

Estimated lowest pressure at which a fluid injection injury can occur.

180 bar (2,600psi)

Across-the-counter consumer pressure washer.

2,700 bar (40,000psi)

Ultra high pressure water jetting.

The algorithm details best practice actions at each step of the emergency response from giving first aid to ongoing hospital care.

It is based on research, commissioned by the WJA, by a team of UK emergency medicine physicians and published in the European Journal of Trauma and Emergency Surgery in 2019. By 2023, the research paper had been accessed more than 10,000 times, making it one of the most important references on the topic in the world.

The study found treatment outcomes for people who suffer high pressure fluid injection injuries, where a fluid punctures the skin, are often compromised by underestimation of their severity, leading to treatment delays.

Thanks to the WJA Water Jetting Injury Treatment algorithm, employers, first responders, paramedics and hospital medical teams can now follow clear instructions to optimise treatment of water jetting injuries.

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The evidence shows that, without early and correct intervention, the outcome for those injured is often catastrophic, including death, loss of limbs and long-term disability. We strongly advise all parties to observe the WJA's updated guidelines.

**Dr Sancho Rodriguez-Villar LMS,
PhD (Cum Laude), EDIC AFICM**
Intensive Trauma Unit (ITU) Consultant
and WJA Senior Clinical Advisor

”

The WJA injury treatment algorithm is available as an easy-to-follow 12-page digital or printed booklet.

WJA MEMBERSHIP

– THE BENEFITS



Reputational gain

Share the trust and integrity of the recognised leader of the UK's water jetting industry



Marketing advantage

Only WJA members have the right to display the WJA logo to market their services



Audited member scheme

Becoming a WJA Audited Member proves you set standards that impress customers



Access to information

Instant access to information, including our codes of practice, through the WJA App



Expert technical advice

Free access to technical advice and information via the WJA technical manager



Medical support

Free advice on water jetting injury and health via the WJA's senior medical advisor



Free access to Croner

Online and telephone advice on HR issues, health and safety, and business regulations



Service promotion

Promotion of your services through the online WJA Member Directory



Media collaboration

Opportunities to work with the WJA on articles and case studies in business media



WJA news promotion

Participate in regular features on the WJA news pages that promote your business



WJA Trade Show

Showcase your services at the WJA Trade Show – the UK's only water jetting event



WJA Training

Develop your teams' skills and capabilities through the WJA's accredited training programme



Carbon off-set scheme

Free participation in the WJA's carbon off-set and wildlife development scheme



Representation

Have your business interests and views represented by your industry's professional body



Participation

Be active in the WJA by sharing ideas and joining our board and subgroups

SUSTAINABLE JETTING – THE WJA GOES DIGITAL

The Water Jetting Association is taking great strides to make its operations and its services for members more sustainable.

The association has implemented a digital strategy, which has seen it become almost paper-free, shrinking its carbon footprint.

At the centre of this drive to save resources and eliminate wasteful costs, has been the introduction, in January 2024, of a new WJA App.

Members now use the app to access their membership details and communicate with the WJA office team. Water jetting training can be booked and managed through the app.

Also, digital versions of the WJA's three codes of practice can be accessed via the app, preventing the need for printing of thousands of copies of the vital documents. This also allows them to be updated more regularly.



Not having to carry and transport hundreds of codes of practice is a relief, and saves me petrol. In the past, I used to use dozens of sheets of paper at each training course. Now my courses are 100% paperless. The change is also giving us time to implement more productive initiatives to support WJA members and water jetting operatives.

John Rhodes | WJA Board Member and a WJA-approved Coach/Examiner



Taking advantage of digital systems to streamline our processes, making them more effective, less costly, and aligned with the working practices of our members and lives of water jetting operatives, will be central to our strategy going forward.

Leanne Smith | WJA Director

WJA'S BIODIVERSITY DRIVE GROWS, AND GROWS!

The WJA's initiative to help its members boost biodiversity is showing signs of strong growth.

We are working with rewilding organisation Make It Wild to plant trees in a way that maximises the bio-diversity of the woodland created, encouraging plant, animal and insect wildlife to flourish.

The WJA has committed to planting a tree for every member it has at the end of each year's membership renewal period on 31st of March.



TALK TO US

The Water Jetting Association welcomes enquiries from organisations and people who deliver, use, or benefit from water jetting services

Join the WJA

Find out about WJA training

Work with us to promote standards and safety

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Water Jetting Association

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Download a digital
version of the
WJA Prospectus



WJA pros v6 (SEPT 2025)