

# **ABOUT US**

#### THE SUPPLY CHAIN PARTNER

#### Structural Repair & Protection Specialists for Infrastructure, Utilities & Industry

Total Specialist Maintenance Ltd (TSM) is a trusted multi-disciplined contractor with a reputation for quality delivering technically robust repair, protection, and refurbishment solutions across critical UK infrastructure.

We support a wide range of sectors—including clean water, wastewater, highways, rail, and industrial facilities—with services designed to extend asset life, minimise disruption, and ensure long-term compliance.

Our capabilities include concrete repair, injection waterproofing, bund lining, culvert rehabilitation, protective coatings, carbon fibre strengthening, and ground stabilisation. All services are carried out by trained, multiskilled teams using approved systems and materials.

Health, safety, and environmental compliance are integral to our operations. TSM operates fully accredited management systems to ISO 9001 (Quality), ISO 14001 (Environmental), and ISO 45001 (Health & Safety) standards. All personnel are certified in confined space entry, water hygiene, working at height, PASMA, IPAF, and SSSTS/SMSTS.

We work in close partnership with UK water companies, National Highways, Network Rail, local authorities, and their framework contractors, offering both planned maintenance and emergency response.



# **OUR SERVICES**

Total Specialist Maintenance Ltd (TSM) is a leading specialist contractor undertaking structural repair, waterproofing, strengthening, ground stabilisation, refurbishment and protection of civil and building structures throughout the UK.

Our services include but are not limited to:

#### **CONCRETE REPAIR**

- Concrete Condition Surveys
- Hydro Demolition
- Cathodic Protection
- Concrete Repair
- Concrete Protective Coatings
- Fire Damaged Concrete

#### **STRUCTURAL REPAIR**

- Brickwork Repairs
- Carbon Fibre Strengthening (CFRP)
- Crack Injection
- Grit Blasting / Abrasive Cleaning
- Structural Grouting
- Stone Repairs

#### **STABILISATION**

- Floor & Slab Lifting
- Ground Stabilisation
- Increasing Ground Bearing Capacity
- Void Filling

#### **CHEMICAL RESISTANT LININGS**

- Bund Lining
- Culvert Lining
- Manhole Linings
- Manhole Sealing

#### **RESIN FLOORING**

- Methyl Methacrylate Systems
- Epoxy Floor Coating
- Polyurethane Screeds
- Seamless Polyurethane Coatings

#### WATERPROOFING

- Basement Tanking
- Lift Pit Waterproofing
- Leak Sealing Resin Injection
- Pipe Penetrations
- Structural Waterproofing
- Bridge Deck Waterproofing
- Movement Joint Waterproofing

# **CONCRETE CONDITION SURVEYS**

#### **Accurate Diagnosis for Long-Term Protection**

Concrete Condition Surveys are required to assess the condition and durability of reinforced concrete structures. Whether you're managing highways, marine assets, car parks, or heritage buildings, our surveys provide the vital insights needed to make informed maintenance and repair decisions.

Using a combination of visual inspections, non-destructive testing (NDT), and laboratory analysis, we evaluate key factors such as:

- Surface cracking, spalling, and delamination
- Carbonation depth and chloride ingress
- Half-cell corrosion potential mapping
- Cover depth and steel reinforcement condition
- Concrete compressive strength (via core sampling)

Our detailed surveys identify early signs of corrosion and structural deterioration, helping to prevent costly failures and extend the life of your assets.

#### **WHY CHOOSE TSM?**

What sets TSM apart is our ability to seamlessly integrate survey findings with practical repair and protection solutions—including cathodic protection, structural repairs, and anti-carbonation coatings. Every report is clear, actionable, and tailored to your structure's environment and operational demands.

Trusted by local authorities, contractors, and asset managers nationwide, Total Specialist Maintenance Ltd offers the complete package: technical expertise, industry-leading equipment, and a commitment to quality.





# **HYDRO DEMOLITION**

#### Precision Removal, Maximum Protection

Total Specialist Maintenance Ltd provides advanced hydro demolition services employing ultrahigh-pressure water jets to selectively remove deteriorated or unsound concrete. This non-impact technique ensures minimal substrate damage, preserves reinforcement integrity, and creates an optimal surface profile for subsequent repair or coating applications. Hydro demolition is ideal for complex structural remediation projects requiring precision and controlled concrete removal. This non-percussive method eliminates the risk of microcracking, preserves steel reinforcement, and offers a cleaner, safer alternative to traditional mechanical breaking.

#### **OUR HYDRO DEMOLITION SERVICES INCLUDE:**

- Targeted removal of delaminated, spalled, or defective concrete
- Surface preparation for repair bonding or coating adhesion
- Removal around corroded rebar without damaging reinforcement
- Full or partial depth concrete removal
- Robotic and hand-held water jetting solutions
- Slurry and wastewater management in compliance with environmental regulations

#### WHY CHOOSE TSM?

TSM's hydro demolition technicians are fully trained and certified, with extensive experience working in high-risk environments such as highways, marine structures, and confined spaces. We use advanced, high-pressure equipment to ensure precision, safety, and efficiency.

# FIRE-DAMAGED CONCRETE

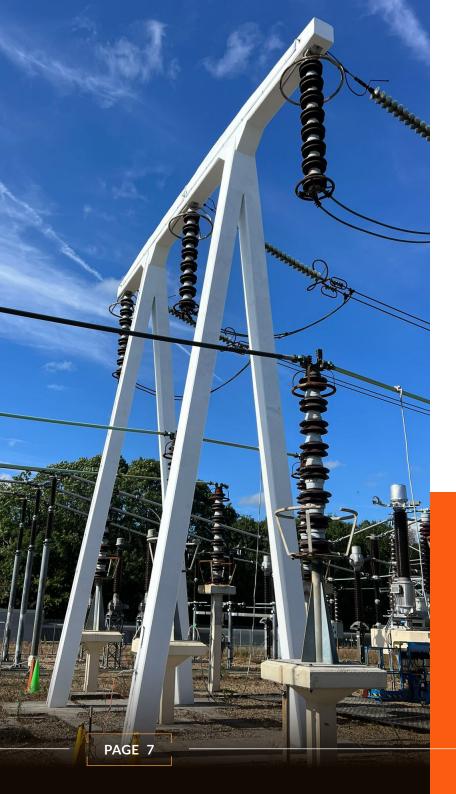
# Restoring Structural Integrity After Fire Exposure

Fire exposure can significantly alter the physical and mechanical properties of concrete, compromising both structural performance and safety. Total Specialist Maintenance Ltd offers specialised inspection and repair services to assess thermal damage, determine residual structural capacity, and implement engineered remediation solutions that restore integrity, durability, and compliance with design requirements.

# OUR FIRE-DAMAGED CONCRETE REPAIR SERVICES INCLUDE:

- Detailed condition assessment and damage mapping
- Removal of weakened and delaminated concrete
- Cleaning and treatment of heat-affected reinforcement
- Application of high-performance repair mortars designed for thermal recovery
- Structural strengthening where required (e.g., fiber-reinforced polymers, concrete overlays)
- Protective coatings to enhance durability and fire resistance





### **CONCRETE REPAIR**

#### Restoring Strength, Safety & Service Life

At TSM we provide specialist concrete repair services to a wide range of structures, including bridges, buildings, marine assets, and infrastructure. Our goal is to restore structural integrity, prevent future deterioration, and extend the lifespan of your assets—all while minimising downtime and disruption.

We follow BS EN 1504 standards and utilise the latest materials and methods to ensure longlasting results. Our expert teams are experienced in repairing damaged concrete caused by corrosion, impact, freeze-thaw cycles, and chemical exposure.

#### **OUR REPAIR CAPABILITIES INCLUDE:**

- Breakout and removal of damaged or delaminated concrete
- Cleaning and reinstatement of corroded reinforcement
- Application of hand-placed, flowable, or spray-applied repair mortars
- Crack injection using resin or epoxy systems
- Application of protective coatings and anti-carbonation barriers
- Integration of corrosion prevention solutions (e.g. anodes or inhibitors)

#### WHY CHOOSE TSM?

Utilising our team's decades of experience, TSM provides reliable, cost-effective repair solutions tailored to your structure's environment and performance needs. Our technicians are fully trained to work in complex and high-risk environments, including coastal, marine, highways, and confined access sites.

Every project is delivered with a focus on quality, durability, and safety, backed by comprehensive aftercare and ongoing maintenance support where needed.

### **BRICKWORK REPAIR**

#### Specialist Restoration and Structural Repair of Masonry Assets

Our team of bricklayers and masonry specialists provides structural and cosmetic brickwork repairs across heritage, commercial, industrial, and infrastructure environments. We address deterioration caused by weathering, structural movement, moisture ingress, and material failure—delivering long-term solutions that restore both integrity and appearance, in full compliance with conservation and engineering standards.

Brickwork degradation can result from moisture ingress, sulphate attack, frost damage, settlement, or general age-related deterioration. TSM's repair strategies are tailored to the specific failure mechanisms identified during site investigation, ensuring appropriate material compatibility and structural performance.

Our works are carried out by trained masons and technicians with experience in both traditional and modern construction techniques. Whether part of a conservation project or a wider structural repair scheme, we ensure that all interventions respect the original fabric and performance of the building.

#### **OUR BRICKWORK REPAIR SERVICES INCLUDE:**

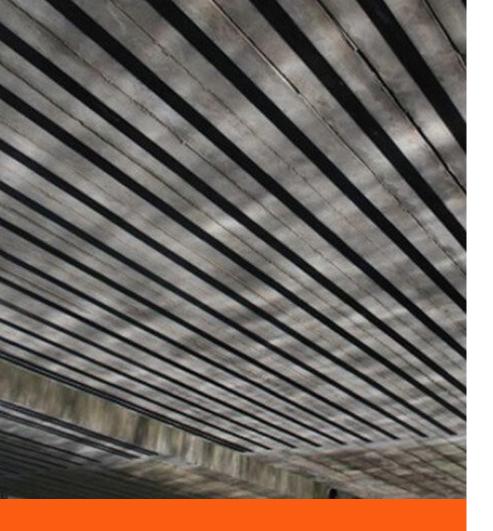
- Repointing using lime mortars or modern equivalents
- Brick replacement and matching of historic or obsolete profiles
- Crack stitching and wall tie replacement
- Reinforcement using stainless steel helical systems
- Masonry grouting and void filling
- Soffit, arch, and parapet stabilisation
- Cleaning and protective surface treatments

#### WHY CHOOSE TSM?

TSM applies best-practice repair techniques in accordance with BS 5628, BS EN 1996 (Eurocode 6), and Historic England guidance where applicable. We ensure compatibility between existing substrates and repair materials, avoiding further deterioration from differential movement or poor bonding.

Our holistic approach ensures not only the structural integrity of the repaired element but also the visual consistency and historic value of the asset.





Our carbon fibre strengthening systems are designed and installed in accordance with TR55, ACI 440, and Eurocode standards. TSM provides a full service from structural assessment and system design through to surface preparation, application, and quality control testing. The result is a high-performance, non-invasive solution that offers rapid installation, minimal disruption, and long-term reliability.

# CARBON FIBRE STRENGTHENING (CFRP)

# Lightweight, High-Strength Solutions for Structural Reinforcement

Total Specialist Maintenance Ltd offers advanced carbon fibre strengthening solutions using both plate bonding and wrap systems to enhance the load-carrying capacity of concrete, steel, and masonry structures. These lightweight, non-corrosive materials offer exceptional tensile strength and durability, making them ideal for structural upgrades, change-of-use adaptations, or the rectification of design or construction defects.

Carbon fibre plate bonding involves the application of pultruded CFRP plates to structural elements such as beams, slabs, and columns to increase flexural and shear strength. Carbon fibre wrapping uses high-strength fabrics applied in multiple orientations around columns, beams, or joints to confine concrete, increase ductility, and improve load distribution.

#### **Applications Include:**

- Structural upgrading to meet new loading requirements
- Repair and strengthening of fire- or impact-damaged structures
- Seismic retrofitting and column confinement
- Increased capacity for change of use (e.g. residential to commercial)
- Minimal-weight reinforcement where traditional methods are unsuitable

### **GROUND STABILISATION**

# Precision Injection Techniques for Soil Improvement and Void Remediation

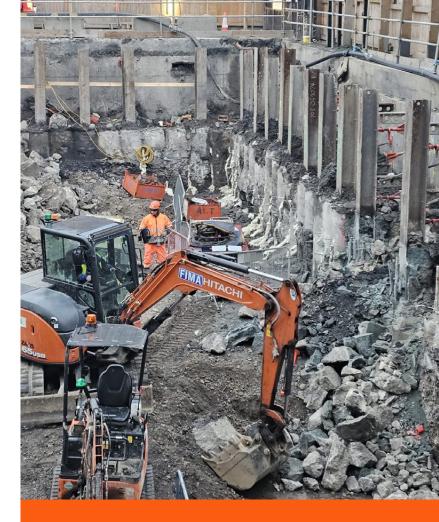
TSM provide and install advanced ground stabilisation injection systems designed to strengthen weak soils, fill voids, and arrest ground movement beneath critical infrastructure. Using a range of expansive polyurethane resins and cementitious grouts, we provide engineered solutions to restore ground integrity, improve load-bearing capacity, and prevent further settlement or structural damage.

Ground stabilisation via injection is a non-invasive, cost-effective alternative to traditional excavation or underpinning methods. It is particularly suitable for time-sensitive or access-restricted environments such as highways, airport runways, railway infrastructure, industrial floors, bridge approaches, and embankments.

Our approach begins with detailed geotechnical investigation and condition assessment, allowing us to tailor the resin or grout type, injection depth, and pressure parameters to each site's requirements. Injection points are strategically installed to target problem zones, ensuring material delivery precisely where ground improvement is needed.

#### **OUR GROUND STABILISATION SERVICES INCLUDE:**

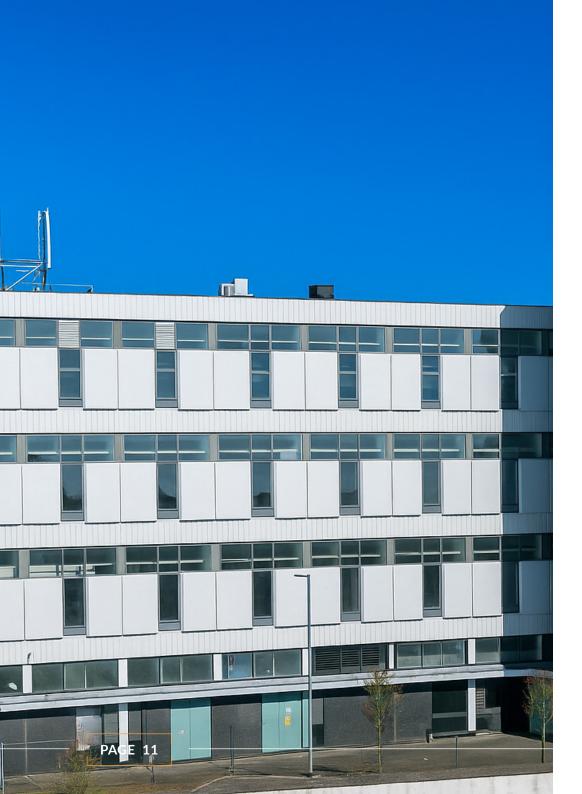
- Geotechnical investigation and void mapping
- Injection of low- and high-expansion polyurethane resins for rapid lift and stabilisation
- Deep injection of cementitious or chemical grouts for long-term soil consolidation
- Slab lifting and levelling for roads, warehouse floors, and pavements
- Sinkhole remediation and erosion void infill
- Permeation grouting to reduce water ingress and increase soil cohesion
- Real-time monitoring and post-injection verification



#### WHY CHOOSE TSM?

TSM's injection methods are engineered to address both structural and geotechnical challenges with precision. Our teams work under strict QA/QC procedures, delivering stabilisation solutions in accordance with BS EN 12715 and applicable Eurocode 7 geotechnical design standards.

From reactive emergency works to planned geotechnical remediation, we provide safe, controlled, and durable ground improvement with minimal surface disruption.



# CONCRETE PROTECTIVE COATINGS

#### **Protecting Surfaces, Preserving Structures**

High-performance concrete protective coatings are applied to shield structures from the harsh effects of weathering, pollutants, chlorides, carbonation, and chemical exposure. Whether for bridges, marine structures, car parks, or industrial sites, our coatings form a vital barrier—preventing water ingress, corrosion, and surface deterioration.

Protective coatings are a key component of any preventative maintenance or post-repair protection strategy. Applied to both new and existing concrete, our solutions enhance durability, reduce future maintenance costs, and improve the aesthetic appearance of structures.

#### **OUR PROTECTIVE COATING SERVICES INCLUDE:**

- Anti-carbonation coatings to slow CO₂ penetration
- Elastomeric and crack-bridging coatings for movement tolerance
- Chloride-resistant coatings for coastal or de-icing salt exposure
- Water-repellent impregnations and silane treatments
- Chemical-resistant coatings for industrial environments
- Breathable coatings that allow moisture to escape while sealing the surface.

# CHEMICAL RESISTANT LININGS

# Chemical-Resistant Protection for Secondary Containment

Bunds and secondary containment structures require robust chemical-resistant lining systems to prevent leakage, environmental contamination, and structural degradation caused by aggressive substances. Total Specialist Maintenance Ltd delivers high-performance bund lining solutions using advanced coatings engineered to withstand exposure to fuels, acids, alkalis, solvents, and other hazardous materials.

#### **Our Bund Lining Services Include:**

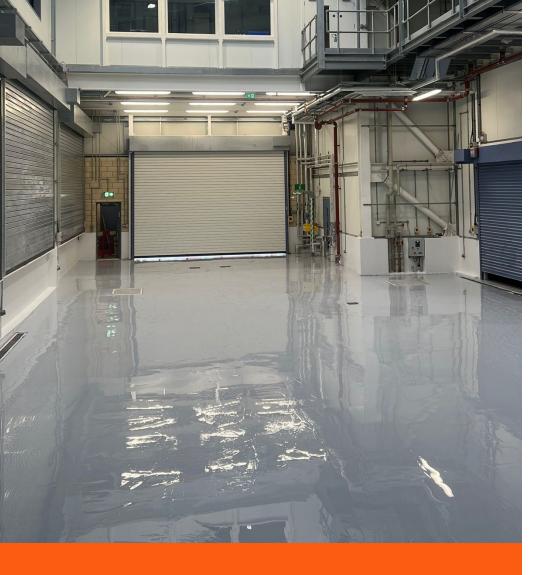
- Surface preparation (mechanical abrasion or hydro jetting)
- Installation of solvent-free epoxy, polyurethane, vinyl ester, or polyurea coatings
- Chemical-resistant lining for concrete, steel, and brick bunds
- Crack bridging and joint detailing using flexible membranes or fillers
- Slip-resistant finishes where personnel access is required
- Testing, inspection, and certification to confirm impermeability



#### WHY CHOOSE TSM?

With years of experience in protective coating technologies, TSM ensures each bund lining system is correctly specified, applied, and tested to perform under the harshest chemical exposures. We ensure compatibility with stored substances and ful compliance with EA/SEPA guidelines and Control of Pollution (Oil Storage) Regulations

Our approach combines robust surface preparation, proven coating systems, and skilled applicators—delivering long-term protection with minimal disruption to operations.



TSM's resin flooring systems are installed by fully trained operatives in accordance with FeRFA, BS 8204-6, and manufacturer specifications. We deliver seamless, durable surfaces engineered to resist wear, chemicals, and heavy mechanical loads—providing both outstanding performance and a flawless finish.

# **RESIN FLOORING**

# Durable, Chemical-Resistant Solutions for Industrial and Commercial Environments

Total Specialist Maintenance Ltd specialises in the installation of high-performance resin flooring systems designed to withstand heavy traffic, chemical exposure, thermal variation, and hygiene-critical conditions. Our resin flooring solutions are engineered to meet the demands of industrial, commercial, and public sector environments—providing long-term durability, safety, and compliance.

We offer a wide range of resin technologies tailored to substrate condition, operational use, and environmental exposure. Systems include epoxy, polyurethane (PU), methyl methacrylate (MMA), and polyaspartic coatings—each selected based on performance requirements such as slip resistance, impact tolerance, thermal shock resistance, and chemical durability.

#### **OUR RESIN FLOORING SERVICES INCLUDE:**

- Mechanical surface preparation (vacuum shotblasting, diamond grinding)
- Application of self-smoothing, trowel-applied, or broadcast systems
- Anti-slip and chemically resistant coatings for plant rooms, warehouses, and process areas
- Anti-static (ESD) flooring systems for electronics and hazardous environments
- Rapid-cure systems for time-sensitive projects (e.g. MMA)
- Joint detailing and integration with drainage systems
- Hygienic wall-to-floor covering for food and pharmaceutical areas

## **MANHOLE LINING**

#### H<sub>2</sub>S-Resistant Protection for Wastewater Infrastructure

Total Specialist Maintenance Ltd provides advanced manhole lining solutions designed to protect wastewater assets from hydrogen sulphide ( $H_2S$ ) attack, which can cause concrete degradation, corrosion, and structural failure. Our specialist coatings extend asset life, reduce maintenance costs, and ensure compliance with water industry and environmental standards.

Our lining systems are suitable for both rehabilitation and proactive protection, delivering long-term chemical resistance and durability in aggressive sewer environments.

#### **OUR MANHOLE LINING SERVICES INCLUDE:**

- Condition assessment and substrate preparation
- High-pressure water cleaning or hydro blasting
- Repair of spalled or damaged concrete
- Application of H<sub>2</sub>S-resistant epoxy, polyurethane, or cementitious linings
- Installation of corrosion barriers in manholes, chambers, wet wells, and culverts
- Quality assurance through spark testing and adhesion testing

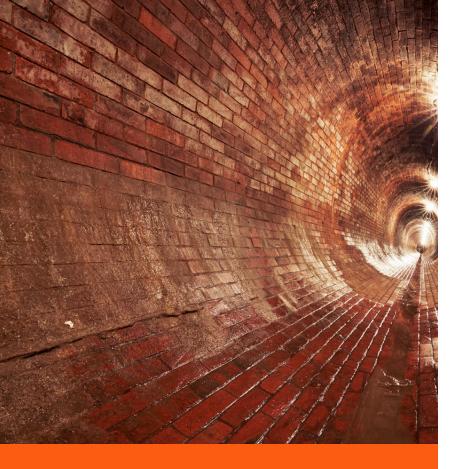
#### POLYURETHANE INJECTION FOR MANHOLE SEALING

TSM also provides polyurethane injection to remediate water ingress in manholes and underground chambers. Low-viscosity, moisture-reactive resins are injected into cracks or joints, where they expand to form a flexible, watertight seal. This method is highly effective in live infiltration scenarios and maintains adhesion to damp substrates.



#### WHY CHOOSE TSM?

Our trained operatives apply proven systems under strict quality control, ensuring compatibility with WRc, WIMES, and other specifications. We work with water utilities, contractors, and local authorities to rehabilitate and protect critical underground assets—delivering safe, durable, and compliant wastewater infrastructure.



All works are carried out in accordance with relevant standards including BS EN ISO 11296, WRc SRM guidelines, and local authority specifications. TSM's multidisciplinary approach ensures precise material selection, structural performance validation, and hydraulic capacity retention across all lining solutions.

We specialise in working in live service conditions, confined access zones, and environmentally sensitive sites, offering fully engineered rehabilitation with minimal disruption.

## **CULVERT LINING**

#### Structural Rehabilitation Using Engineered Lining Systems

Total Specialist Maintenance Ltd delivers technically advanced culvert lining solutions for the structural rehabilitation of deteriorated culverts across highways, rail, utilities, and water management infrastructure. Our lining systems are designed to restore hydraulic capacity, structural integrity, and chemical resistance while minimising excavation and service disruption.

Deterioration mechanisms such as abrasion, chemical attack, joint displacement, corrosion (in metallic culverts), and infiltration compromise the performance of ageing culverts. TSM utilises a range of trenchless technologies tailored to culvert geometry, substrate material, and defect severity.

#### **TECHNICAL CAPABILITIES INCLUDE:**

- Pre-lining condition assessments using CCTV and laser profiling
- High-pressure jetting and removal of debris, silt, and loose substrate
- Installation of fully structural linings, including:
  - Cured-in-place pipe (CIPP) systems
  - Glass-reinforced plastic (GRP) segmental lining
  - Sprayed concrete (shotcrete) or geopolymer mortar linings

- Application of protective coatings for enhanced chemical and abrasion resistance
- Sealing of infiltration points and annular voids using polyurethane or cementitious grouts
- Post-installation quality assurance testing (e.g. air pressure, CCTV, pull-out testing)

# BRIDGE DECK & CULVERT WATERPROOFING

#### High-Performance Methyl Methacrylate Membranes for Structural Asset Protection

At Total Specialist Maintenance Ltd, we provide advanced waterproofing systems that protect and extend the life of bridge decks, culverts, and substructures.

Our spray-applied, BBA and HAPAS approved solutions create a fully bonded barrier that safeguards your structure for its full design life, helping you avoid costly repairs and unplanned maintenance.

To confirm performance, every project undergoes electrical integrity testing. This process identifies even the smallest defects, ensuring your structure is completely waterproof and fully protected. Thanks to advanced self-adhering polymer technology, any touch-ups are quick, effective, and seamless.

By forming a powerful bond with asphalt overlays, our systems create a durable, composite finish that ensures lasting protection and smooth performance. Thanks to rapid cure technology, bridges can reopen to traffic faster, reducing disruption and keeping projects on schedule. Suitable for both concrete and steel, in any season, these systems give you the flexibility to deliver stronger, longer-lasting results—without compromise.

The outcome is clear: quicker installation, long-term durability, and reliable protection for your infrastructure.

#### **SYSTEM BENEFITS AND APPLICATIONS:**

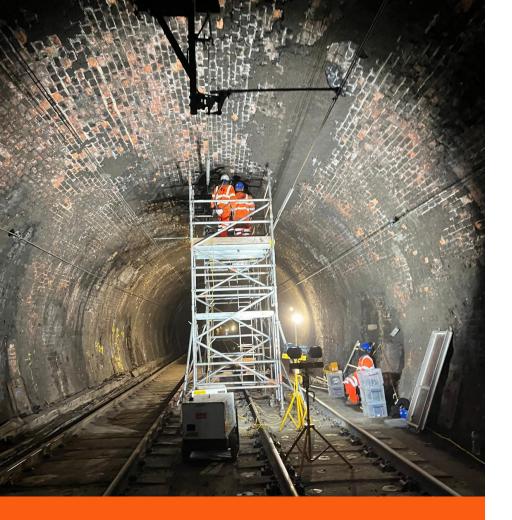
- High chemical bond strength to deck & substrate resisting shear forces
- Seamless no vulnerable joints/seams
- Thixotropic for simple, effective detailing
- Applied all year round

- Rapid application and cure
- Highly resistant to site damage
- Electrical integrity testing
- Composite



#### WHY CHOOSE TSM?

TSM's applicators have extensive experience in large-scale infrastructure waterproofing under live site conditions. All works are delivered under our ISO 9001, ISO 14001, and ISO 45001 certified management systems, with full QA/QC procedures including DFT (dry film thickness) testing, adhesion pull-off testing, and substrate moisture assessment.



TSM is an approved contractor for MC-Building Chemicals' specialist waterproofing systems, including hydrostructural elastomer and acrylic gel technologies. These solutions are widely adopted across the UK and European rail and highways sectors as a reliable, low-disruption alternative to traditional waterproofing methods.

All works are carried out efficiently and safely, without disruption to local rail or road networks, ensuring durable, long-lasting protection for critical bridge and tunnel structures.

# BRIDGE AND TUNNEL WATERPROOFING RESININJECTION

### Fast, Effective Waterproofing Solutions

#### for Rail and Highway Structures

Total Specialist Maintenance (TSM) provides professional leak-sealing resin injection waterproofing services to bridges, tunnels, and subways on a national basis, serving both the rail and highways sectors.

We work in partnership with MC-Building Chemicals to supply and install the GL95 elastomer injection bridge deck waterproofing system. This advanced system is suitable for application to brick, stone and steel bridge and tunnel structures, providing long-term protection against water ingress and chloride attack.

TSM's bridge deck waterproofing services have been successfully delivered on numerous Network Rail and highway infrastructure projects. The GL95 elastomer gel injection structural waterproofing system offers a proven, cost-effective solution, eliminating the need for full deck removal or expensive possessions, as all works are completed from the underside of the structure.

# PROBLEMS THAT REQUIRE BRIDGE DECK LEAK-SEALING RESIN INJECTION WATERPROOFING INCLUDE:

- Water ingress through bridge decks or joints
- Failed existing waterproofing membranes
- Deterioration due to chloride or chemical attack
- Leaks at movement or construction joints
- Cracks in concrete, brick or stone bridge structures

# LEAK-SEALING RESIN<br/>INJECTION WATERPROOFING

#### Fast, Effective Solutions for a Range of Applications

Total Specialist Maintenance (TSM) provides leak-sealing resin injection waterproofing services to manholes and chambers, sealant pile walls, concrete walls and floors, basements, residential properties, masonry structures and car parks on a national basis and for various market sectors.

We carry out all forms of leak-sealing resin injection waterproofing, including damp/water-bearing cracks, cracks that require ongoing elastic movement, leaking movement joints and masonry structures. TSM are experts in leak-sealing resin injection waterproofing using all different types of leak-sealing resin injection waterproofing systems, which include fast-reacting foaming polyurethane, closed-cell foaming polyurethane, flexible foaming polyurethane, elastic polyurethane and elastomer gel injection systems.

# PROBLEMS THAT REQUIRE LEAK SEALING RESIN INJECTION WATERPROOFING

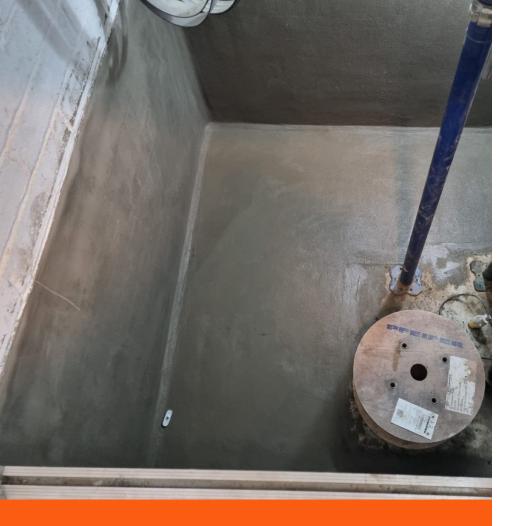
- Expansion joints and movement joints
- Water-bearing cracks
- Honeycombed concrete
- Structures where existing waterproofing has failed
- Leaking joints in sealant pile walls

- Leaking joints in sheet piling
- Pipe penetrations, service penetrations
- Canal locks and canal embankments
- Leaking manholes
- Leaking joints in precast and in-situ concrete



#### **WHY CHOOSE TSM?**

We are an approved contractor of all of the major leak-sealing resin injection waterproofing material manufacturers' product ranges. As an approved contractor, TSM selects the most appropriate materials and design solutions to provide a cost-effective engineered package.



TSM's experience spans across commercial, residential, and industrial properties, ensuring tailored solutions that meet each site's specific challenges. Our in-house teams manage every stage—from investigation and preparation to installation and quality assurance—minimising disruption and maximising performance.

Trusted by facilities managers, contractors, and building owners nationwide, Total Specialist Maintenance Ltd provides proven waterproofing protection built to last.

### LIFT PIT WATERPROOFING

#### **Permanent Protection Against Water Ingress**

Lift pits are highly susceptible to water ingress due to their below-ground position and constant exposure to hydrostatic pressure. Effective waterproofing is essential to prevent flooding, corrosion, and operational downtime. Total Specialist Maintenance Ltd delivers robust waterproofing systems designed to provide lasting protection and ensure safe, dry, and reliable lift operation.

Our specialists assess each pit's construction and environmental conditions before selecting the most appropriate waterproofing method.

#### Solutions may Include:

- Resin injection to seal active leaks and cracks
- Cementitious or crystalline coatings for full-surface waterproofing
- Membrane systems for long-term resilience
- Joint sealing and detailing for critical interfaces
- Sump and drainage improvements where required

By combining advanced materials with skilled application, we deliver watertight systems that protect both new and existing lift pits from water ingress, chemical attack, and structural deterioration.

# STRUCTURAL WATERPROOFING

#### **Protecting Structures from Water & Gas Ingress**

TSM deliver specialist structural waterproofing solutions for new and existing buildings, basements, tunnels, podiums, and critical infrastructure. Our aim is to safeguard your assets from water ingress, damp, and gas penetration—ensuring durability, compliance, and long-term performance.

Working to BS 8102:2022 standards, our expert teams install a full range of Type A and Type C systems, together with podium/roof deck membranes, gas and radon barriers, and bund/tanking solutions. We provide end-to-end services from design through installation, offering tailored, maintainable systems for every environment.

#### **OUR WATERPROOFING CAPABILITIES INCLUDE:**

- Type A barrier protection systems, including pre-applied membranes, post-applied liquid or sheet membranes, and cementitious coatings
- Type C cavity drain membrane systems with integrated sump pump water management solutions
- Combined protection strategies, incorporating
  Type A and C systems alongside Type B
  structural waterproofing

- Podium and roof deck waterproofing membranes with DPC termination details for full continuity
- Gas and radon barrier systems, installed as standalone or dual-function membranes
- Service penetration detailing with specialist gaskets and waterproof sealants
- Bund and tanking waterproofing using epoxy or other high-performance coatings



#### WHY CHOOSE TSM?

With extensive expertise across civil, commercial, and heritage sectors, TSM provides reliable, fully compliant waterproofing systems designed around your structure's needs. We work in close partnership with leading manufacturers to ensure every project meets BS 8102:2022 requirements and your performance expectations.

Our technicians are highly trained to deliver systems that are robust, fully maintainable, and supported by our comprehensive company guarantee. From basements and vaults to roof decks and listed buildings, we provide lasting protection against water and gas ingress—delivered safely, efficiently, and with minimal disruption.



By using TSM's expertise, asset owners can significantly extend the lifespan of concrete structures while minimising future repair costs and safety risks.

# CATHODIC PROTECTION IN REINFORCED CONCRETE STRUCTURES

Cathodic protection (CP) is an advanced corrosion prevention technique used in reinforced concrete structures exposed to aggressive environments, such as marine areas, bridges, and parking decks. It protects the steel reinforcement by converting it into a cathode of an electrochemical cell, thus halting the corrosion process. This is typically achieved using sacrificial anodes or impressed current systems.

Total Specialist Maintenance (TSM) provides expert services in the design, installation, monitoring, and maintenance of cathodic protection systems in reinforced concrete.

#### Our services include:

- **Site Assessment & Surveys:** TSM conducts corrosion assessments to determine chloride ingress, carbonation levels, and the extent of steel reinforcement corrosion.
- **System Design:** Tailored CP system designs (sacrificial or impressed current) based on the structure's condition and environment.
- **Installation:** Professional installation of CP systems, including anodes, reference electrodes, wiring, and control units.
- **Monitoring & Testing:** Regular performance testing to ensure the system meets protection criteria (e.g., depolarisation levels).
- **Maintenance & Repairs:** Routine servicing, troubleshooting, and replacement of system components to ensure long-term functionality.

# CLEAN WATER RESERVOIR & WATER TOWER REFURBISHMENT

# Specialist Structural Repairs and Internal Protection for Potable Water Assets

Total Specialist Maintenance Ltd provides comprehensive repair and refurbishment services for clean water reservoirs, elevated tanks, and water towers, ensuring continued serviceability, structural integrity, and compliance with drinking water quality standards.

These critical assets are subject to deterioration from environmental exposure, cyclic loading, ageing infrastructure, and internal corrosion. Our services are tailored to address both structural and protective requirements—combining civil repairs with the installation of certified coating systems suitable for potable water contact.

All refurbishment activities are planned and executed in accordance with DWI, Water Industry Specifications (WIS), and WRAS approval requirements, ensuring safety, durability, and regulatory compliance.

#### **OUR SERVICES INCLUDE:**

- Structural concrete repairs to floors, walls, roofs, and support towers
- Access Hatch repair and re-bed
- Application of Hypalon bandage systems for waterproofing construction joints
- Surface preparation using high-pressure water jetting or abrasive techniques
- Application of WRAS-approved epoxy or polyurethane internal coatings

- Crack bridging and joint reinstatement using elastomeric systems
- External protective coatings to combat carbonation, UV, and weathering
- Access platform installation and confined space working procedures
- Flood tests and final clean and chlorination



#### **WHY CHOOSE TSM?**

With extensive experience in the water industry, TSM delivers end-to-end refurbishment solutions with a strong focus on asset life extension, water quality protection, and minimal operational downtime. Our multi-disciplinary teams are trained for confined space and high-access work, ensuring safe, efficient delivery across both ground-level and elevated installations.



TSM's multi-skilled teams deliver efficient, safe, and compliant solutions for live wastewater environments. With full confined space, rescue, and water hygiene certifications, we minimise downtime while maximising durability and protection.

We work in close partnership with major UK water companies, framework contractors, and facility operators to safeguard the performance and longevity of essential wastewater infrastructure.

# WASTEWATER INFRASTRUCTURE REFURBISHMENT

# Structural Repairs and Chemical-Resistant Protection for Aggressive Environments

TSM provides specialist repair and refurbishment services for wastewater assets, including wet wells, digester tanks, inlet chambers, balance tanks, and screening channels. These structures operate in highly corrosive environments, often exposed to hydrogen sulphide ( $H_2S$ ), sulphuric acid attack, abrasion, and high moisture loading.

Our tailored solutions restore both structural integrity and long-term chemical resistance, ensuring full compliance with WIMES, WRc, and UK water industry specifications. TSM applies a range of cementitious, epoxy, and polyurea coating systems—each selected for their resistance to biogenic corrosion, chemical attack, and constant immersion.

#### **OUR WASTEWATER SERVICES INCLUDE:**

- Concrete repair and void reinstatement
- Application of H₂S-resistant linings (epoxy, polyurea, or cementitious)
- Leak sealing via polyurethane injection
- Abrasion-resistant floor and wall coatings
- Surface preparation using ultra-high-pressure water jetting
- Joint and pipe penetration sealing
- Access chamber and cover refurbishment
- Confined space entry and gas monitoring



CONTACT

Total Specialist Maintenance,

The Old Nurseries, Nottingham Road,

Radcliffe-on-Trent, Nottingham, NG12 2DU

Tel 0115 7788661

Email info@totalsm.co.uk

totalsm.co.uk





























