



Remedial Capabilities



REPAIR

STRENGTHEN

PROTECT



FREYSSINET

Who we are

inside

pages 2-5
About us

pages 6-17
Our remedial sectors:

6-7  Buildings

8-9  Marine

10-11  Transport

12-13  Water

14-15  Industrial

16-17  Oil & Gas

Freyssinet is a multifaceted contractor providing innovative solutions for structure remediation, building post-tensioning and specialist civil engineering. The Freyssinet name is synonymous with post-tensioning through our founder Eugene Freyssinet, who was a major pioneer of prestressed concrete. Innovation is in our company's DNA.

In the early 1990s Freyssinet diversified into the structure remediation market and our success in this niche area has delivered rapid growth. We provide turnkey repair, strengthening and protection services for built infrastructure.

All of our services are based on our organisation's universal ethos that local experience teamed with innovative technologies results in effective, whole-of-life, value-for-money solutions.

Freyssinet is part of the Soletanche Freyssinet Group, which has an unrivalled reputation in the field of specialised civil engineering as a world leader in the soils, structures and nuclear sectors. We operate in more than 100 countries spanning five continents. Our ultimate parent, Vinci Group, is a global player in concessions and construction, with over 185,000 employees and a turnover exceeding €38 billion.



Our culture and values

Passion.

Excitement and enthusiasm are inseparable from technical expertise and technology. Passion makes it possible to successfully complete the projects in which we are involved year by year. Our engineers pool their talent, experience and creativity to seek and find the best solution at any stage of the project, from design to implementation.

Excellence.

We strive for excellence across all our activities – employee safety, international expansion, human resources, solution design and risk control. Excellence is the ethical cornerstone of our approach, underpinning the exacting way in which we carry out our projects. Customer satisfaction is the benchmark against which we measure our performance.

Vision.

Freyssinet is constantly innovating and finding new applications to develop sustainable solutions, making new discoveries and filing new patents.

Our commitment to the future combines global expertise, local experience, support for our clients beyond project handover and a special focus on developing the skills of our employees.

Our commitment to safety

People are at the heart of the company and constitute our core asset. General management holds primary responsibility for safety and safety leadership. Training is a crucial tool for enabling everyone to adopt our safety culture.

Safety is at the heart of each stage of our projects.

Our principles:

We work with stakeholders.

We methodically plan our work.

We ensure that the environment is safe.

We provide efficient equipment.

We identify and mitigate dangerous situations.

We train our people to prevent accidents.

Our people

At Freyssinet we believe that 'People deliver projects'. The men and women who work for Freyssinet share a culture that combines our quest for excellence, focus on service, team spirit and rigorous compliance with commitments.

Structure rehabilitation projects are highly specialised, requiring unique skill sets for successful delivery and to ensure ongoing durability. In the Oceania region we employ over 500 personnel, many being professional engineers with specialist qualifications and skills such as corrosion technicians and technologists. Our teams are strategically positioned to provide superior value.



The Freyssinet spirit

What we do

Freyssinet provides specialist remedial services to clients in six key market sectors:



Building



Marine



Transport



Water



Industrial



Oil & Gas

We deliver efficient, sustainable solutions to meet client requirements around the world.

Our one-of-a-kind specialist expertise in both remedial and civil engineering enables us to handle every challenge.

We are keenly aware of the particular needs of our clients in these sectors, and take pride in our ability to transcend our know-how and innovation across sectors.

Within each sector, our core services are asset condition assessment, solution design and development, repair and ongoing maintenance.

This allows our business to work within its core capability and in turn maximise results for our customers.

To provide our clients with single point accountability for asset protection, repair and maintenance, Freyssinet has strong internal design capabilities in specialist fields such as strengthening, corrosion protection and temporary access.

Temporary access is an area in which Freyssinet excels; our specialist approach is often a key differential that enables us to successfully deliver challenging projects. Our in-house engineers are familiar with the complex nature of remediation projects and the assurance that safe and reliable access provides our site teams. We are also creative and readily think outside the box about project access requirements which has led to some very exciting results.

Chimney Repair, Tarong Power Station, QLD



Sydney Harbour Bridge Maintenance, NSW



MLC Centre Facade Maintenance, NSW



Our remedial services

Asset Condition Assessment and Investigation

- Non-destructive concrete testing including: covermeter, GPRS, half-cell potential, corrosion rate
- Concrete sampling and destructive testing including: carbonation, chloride, sulphate, nominal mix, compressive strength, tensile strength
- Material durability assessment
- Coating testing including holiday detection, WFT, DFT
- Identification of structure deterioration mechanisms
- Structural capacity review and assessment of deteriorated structures
- Steelwork non-destructive testing including:
 - Cathodic protection system functionality assessment
 - Service life and whole-of-life modelling and assessment
- Remediation scope of works definition including repair quantification and repair material selection
- Structure remediation durability assessment and design

Design and Specification Services

- Access systems & temporary works
- Structure remediation
- Cathodic protection system
- Electrochemical treatment
- Earthquake strengthening / reinforcement
- Earthquake base isolation
- Structure strengthening - CFRP and external post tensioning

Maintenance and Monitoring

- Term maintenance
- Shutdown maintenance
- Asset surveillance and monitoring
- Cathodic protection system monitoring
- Pipeline surveillance and monitoring

Concrete

- Hydro-demolition
- Water blasting
- Abrasive blasting and cleaning
- Concrete repairs
- Concrete crack injection including epoxy, PU
- Concrete reconstruction
- Cathodic protection
- Electrochemical treatment - realkalisation
- Electrochemical treatment - chloride extraction
- Concrete coatings
- Membranes and waterproofing
- Strengthening - CFRP, external post-tensioning, steel plate

Render

- Render reinstatement
- Heritage feature repair and reconstruction
- Re-rendering
- Render re-bonding

Steel

- Abrasive blasting
- Hazardous coatings removal
- Specialised engineered coatings for steel and other metals
- Strengthening and reconstruction
- Cathodic protection
- Fatigue cracking repairs
- Weld repairs
- Pile repair, wrapping and jacketing

Brickwork, Masonry, Stone and Marble

- Brick expansion repairs
- Brickwork reconstruction
- Brickwork cleaning and poulticing
- Marble and stone indenting
- Cathodic protection of embedded steelwork (lintels)
- Masonry repointing and tuckpointing
- Brick tie installation
- Strengthening and reinforcing - CFRP

Timber

- Timber pile strengthening
- Timber pile wrapping
- Timber reconstruction
- Surface preparation and abrasive blasting
- Timber coatings

Remedial Sector

Buildings



residential

commercial

retail

stadiums

facades

heritage

Building owners, occupiers and managers are continuously confronted with maintenance and upkeep challenges that need to be balanced with the interests of multiple stakeholders. Freyssinet's turnkey approach to building investigation and repair allows us to partner with stakeholders to safeguard asset value by providing technically-advanced, whole-of-life solutions.

As multi-stakeholder projects, building investigation and refurbishment works require effective, well organised management and workforce teams to ensure that tenant disruption is minimised, communication is proactive and key deadlines are met. Freyssinet utilises expert teams that specialise in building remediation or repair works. We have a strong record of successfully delivering in this emerging, specialist sector.

Core services in this sector include:

- condition assessment
- specialised access systems
- structural strengthening
- concrete repair
- crack injection
- carbon fibre strengthening
- brickwork repairs
- facade coatings
- waterproofing
- protective coatings
- jointing and sealants
- cathodic protection

Project selection ►



Heirloom Woolstore Heritage Works, Fremantle, WA

Heirloom Woolstore Heritage Works, Fremantle, WA



MLC Centre Facade Maintenance, Sydney NSW

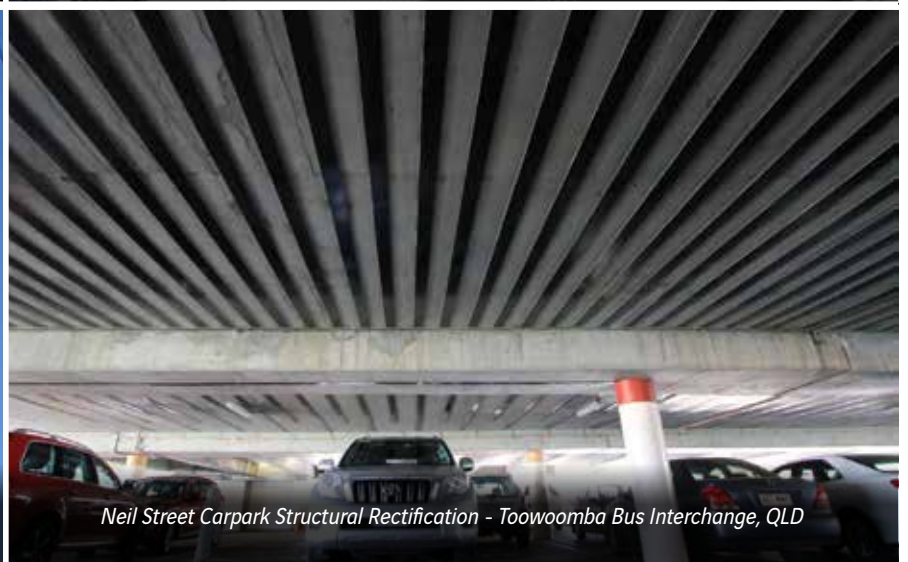
Gabba Central Facades Rehabilitation (4 towers), Brisbane, QLD

Melbourne Central Tower Cone Refurbishment, VIC



Brisbane City Hall, QLD

Woolloongabba Telephone Exchange Facade Repair & Coating, QLD



447 Collins Street Facade Panel Replacement, Melbourne, VIC

Neil Street Carpark Structural Rectification - Toowoomba Bus Interchange, QLD



Remedial Sector

Marine



jetties

docks

wharves

dolphins

Maritime assets such as ports, wharves and jetties are costly to maintain if appropriate strategies are not developed and implemented effectively.

These assets are critical infrastructure and their day-to-day operating efficiency can have a direct relationship on optimal economic performance.

Freyssinet's approach to maritime projects is aligned with owner and operator agendas which has seen us become a contractor of choice for maritime structure rehabilitation.

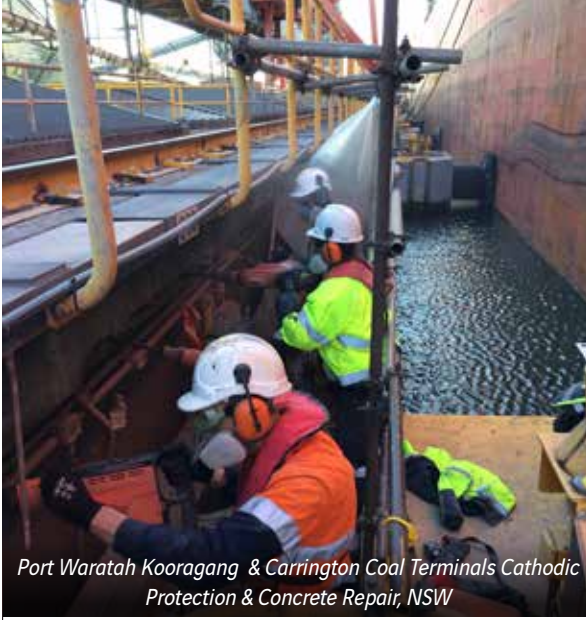
Many maritime structures were constructed well over 30 years ago, which in many cases exceeds their planned design lives. When this occurs, loading restrictions can severely impact operations.

Freyssinet designs and constructs remediation treatments to ensure the service life of maritime assets is extended. We also specialise in unique access systems to ensure safe, environmentally sensitive and productive repair processes can be implemented, expediting project delivery and enhancing safety and other outcomes.

Core services in this sector include:

- temporary access
- condition assessment
- concrete repairs
- cathodic protection
- corrosion monitoring
- pile wrapping
- fender replacement
- protective coating

Project selection ►



Port Waratah Kooragang & Carrington Coal Terminals Cathodic Protection & Concrete Repair, NSW



Webb Dock East Berths 4 & 5 Rehabilitation, Melbourne, VIC



Webb Dock East Cathodic Protection Installation, Melbourne, VIC



Webb Dock East Berths 4 & 5 Rehabilitation, VIC



Princes Wharf Remediation, Hobart, TAS



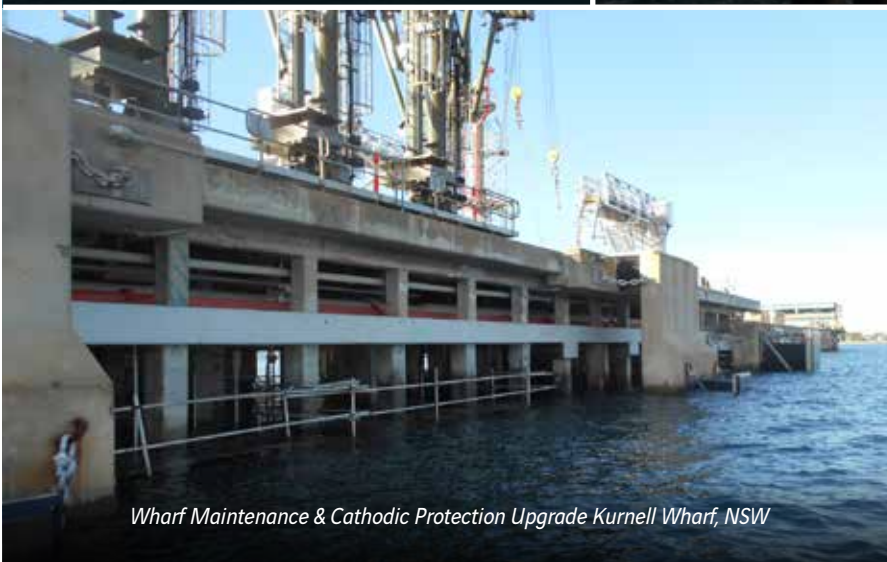
Marine



Port Bonython Jetty, Remediation of Breasting Dolphins, SA



Techport Naval Industry Hub Cathodic Protection Installation, SA



Wharf Maintenance & Cathodic Protection Upgrade Kurnell Wharf, NSW



Cathodic Protection Upgrade, East Intercourse Island, WA



Remedial Sector

Transport



bridges
(road, rail, pedestrian)

culverts

tunnels

Safe, efficient and sustainable transport systems are vital to our national prosperity. Freyssinet has a strong track record maintaining and enhancing our transport infrastructure. Our transport sector services cater to the needs of owners of road and rail assets, most notably for bridges.

Freyssinet is a world leader in the fields of cable stay and suspension cable structures, and specialist bridge construction methods.

Our remedial services in this area have grown rapidly due to the wealth of base level knowledge within the organisation which we leverage in order to add value to our bridge remediation projects.

Core services in this sector include:

- temporary access systems
- structure condition assessment
- cable maintenance and replacement
- bearing replacement
- precision grouting
- carbon fibre strengthening
- external post-tensioning
- concrete, steelwork and timber repair
- crack injection
- cathodic protection
- expansion joint replacement
- steelwork blasting and painting
- protective coating systems

Project selection ►



Southern Link Upgrade Viaduct Strengthening, VIC



Port Kembla Steelworks Rail Bridge Coating, NSW



Kimberley Bridges Maintenance, WA



Peats Ferry Bridges Cathodic Protection, NSW



Repairs & Cathodic Protection Wendts Bridge, Currumbin Ck, QLD



Transport



M2 Toogabbie Creek Bridges Jacking, NSW



Story Bridge Railing, QLD



Cobbadah Creek Bridge Post Tensioning, NSW



Repairs & Cathodic Protection Mountain Creek Bridges, QLD



Hume Highway (Douglas Road) Bridges Realignment, NSW



Remedial Sector

Water



dams

reservoirs

water towers

treatment plants

aqueducts

pipelines

The delivery of safe, secure water supplies and the effective treatment of waste water is essential for public health.

Our water sector clients are constantly challenged by the increasingly competing demands of climate change, population increase and ageing infrastructure.

Freysinet provides repair, strengthening and protection services to ensure new and existing water infrastructure is well positioned to meet these demands at a cost acceptable to the broader community.

Working on water infrastructure is by nature complex, due to isolation, bypass, and confined space issues often encountered. Thanks to extensive experience, Freysinet teams understand the operational requirements of water utilities and are able to effectively plan and manage projects in these environments.

Our whole-of-life, value-for-money solutions approach is perfectly suited to the water sector, where taking infrastructure off-line can come at a substantial cost to the asset owner.

We collaborate with our clients to tailor solutions that enhance their infrastructure durability to ensure long-term performance.

Core services in this sector include:

- **structure condition assessment**
- **concrete repair**
- **post-tensioning**
- **crack injection**
- **protective coating and lining**
- **water proofing**

Project selection ►



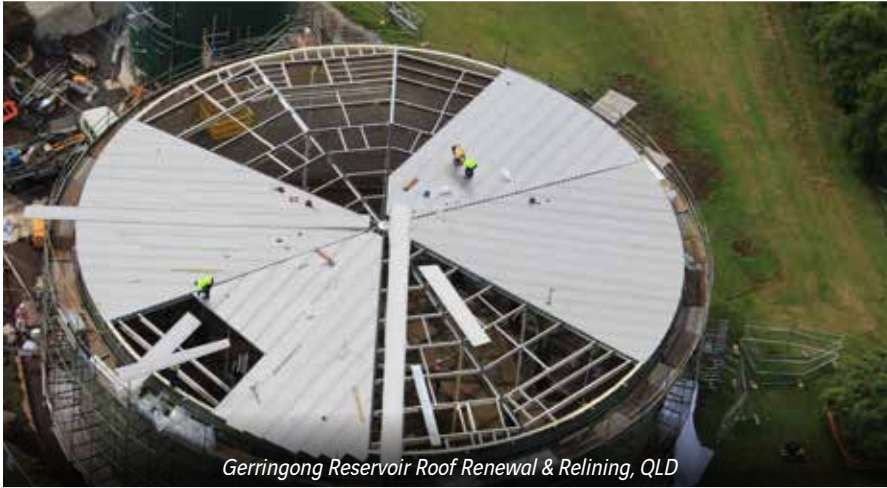
Molendinar Water Treatment Plant Filter Upgrade, QLD



Hammondville Reservoirs Refurbishment, NSW



Molendinar Water Treatment Plant Filter Refurbishment, QLD



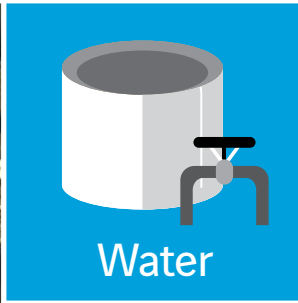
Gerringong Reservoir Roof Renewal & Relining, QLD



Menai Reservoir Roof Renewal & Relining, NSW



Stoney Pinch Reservoir Rehabilitation, NSW



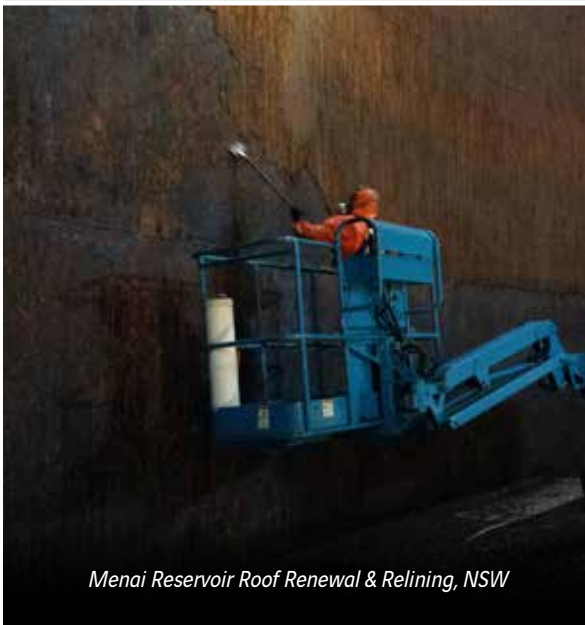
Water



Cronulla STP Cathodic Protection DAF Tanks, NSW



Wiley Park Reservoir Cathodic Protection, NSW



Menai Reservoir Roof Renewal & Relining, NSW



Fiona Stanley Hospital Tank Inspection & Repairs, WA



Oxley Creek STP Rehabilitation, QLD



Remedial Sector

Industrial



silos

power stations

mines

tanks

Freyssinet’s industrial sector capability extends to power, mining and industrial processing sites. Assets on those sites are subject to harsh conditions due to chemicals used in many processes as well as the locations of such facilities. Consistent with all key infrastructure, breakdowns that halt operations are a serious concern for site operators. Freyssinet has a proven record in responding to a client's key requirement to ensure operations are maintained.

We provide industrial clients with our full range of asset repair capabilities, protection and strengthening services completed under project, shut-down or term maintenance contract models. Our diverse range of skills make us the partner of choice for site maintenance contracts where a client’s preference is to deal with a safe, reliable and sole service provider.

Core services in this sector include:

- structure condition assessment
- ultra-high pressure water-blasting
- blasting and painting
- concrete and steelwork repair
- post-tensioning
- corrosion management systems and cathodic protection
- high performance coating
- precision grouting
- joint rectifications
- fireproofing and intumescent coating

Project selection ►



Investigation & Concrete Repair, Liddell Power Station, NSW



Liddell Power station, NSW



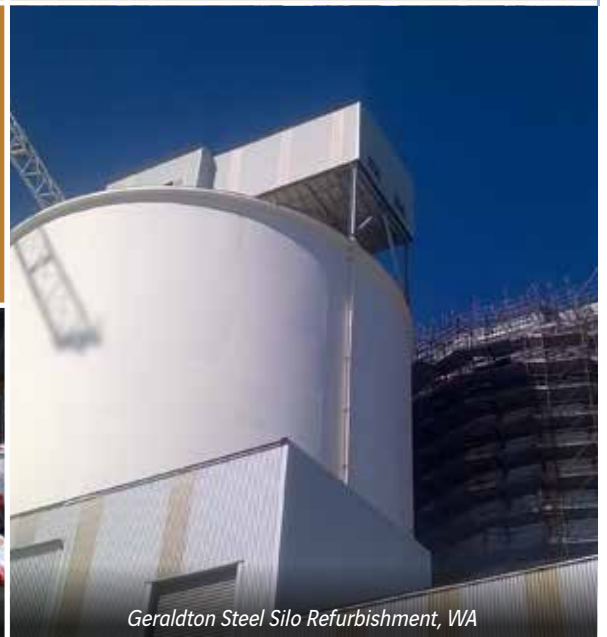
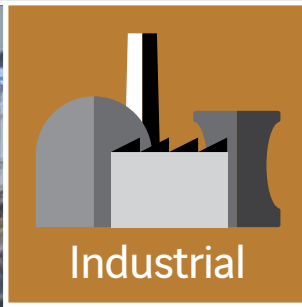
Cooling Tower Concrete Repair, Tarong Power Station, QLD



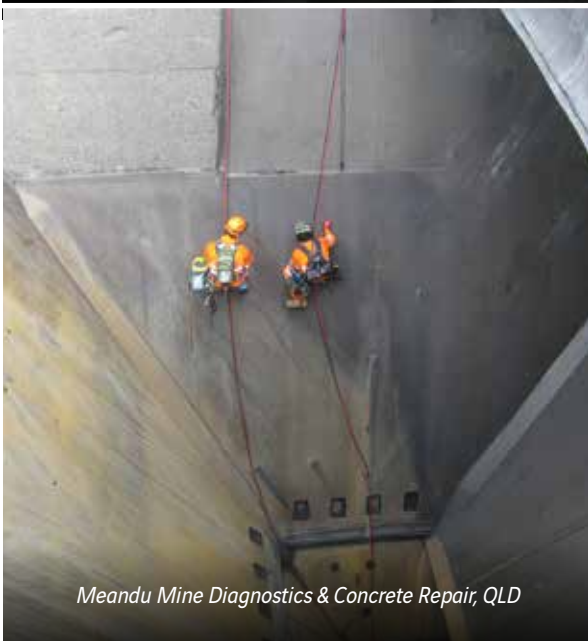
Qenos Utilities Chimney Inspection, NSW



Curragh Mine Thickener Tank Remediation & Cathodic Protection, QLD



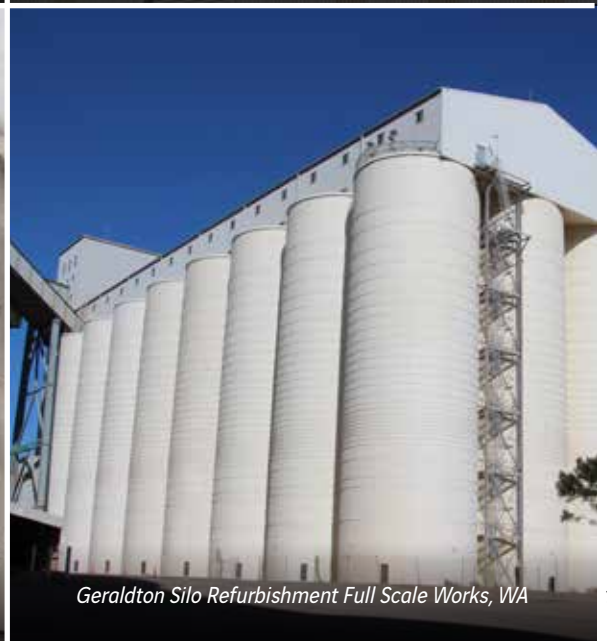
Geraldton Steel Silo Refurbishment, WA



Meandu Mine Diagnostics & Concrete Repair, QLD



Geraldton Silo Refurbishment Trial Works, WA



Geraldton Silo Refurbishment Full Scale Works, WA



Remedial Sector

Oil and Gas



wharves

pipelines

tanks

The security and safety of any oil and gas site is a key concern in this service sector. Any works undertaken on oil and gas sites must safeguard the site while ensuring that operations are not affected.

Freyssinet has a long track record maintaining oil and gas infrastructure dating back to our work in the North Sea in the 1970s. We have experience in both building new assets and undertaking repairs to existing oil and gas infrastructure.

We understand the importance of process safety to our oil and gas sector clients, and are able to plan and execute our services in a manner which guarantees these important characteristics.

Core services in this sector include:

- **structure condition assessment**
- **ultra-high pressure water-blasting**
- **blasting and painting**
- **concrete repair**
- **cathodic protection**
- **high performance coating**
- **grouting**
- **joint rectification**

Project selection ►



Puma Energy Tanks Inspection, Testing & Corrosion Assessment, QLD



Lowes Petroleum Rural Depot Cathodic Protection Survey, VIC



Cable Based Reinforcement Siri Offshore Platform, North Sea



Port Bonnython Jetty, Remediation of Breasting Dolphins, SA



Oil & Gas



Caltex, Qenos and Vopak Pipeline Monitoring, Cathodic Protection Survey & Maintenance, NSW



Kurnell Terminal Wharf Maintenance, NSW



Caltex Pipeline Monitoring, NSW



Qenos Ethylene Pipeline Monitoring, NSW



Qenos Pipeline Monitoring, Works Supervision, Botany, NSW

Our global network



THE AMERICAS • Argentina • Brazil • Canada • Chile • Colombia • Salvador • United States • Mexico • Panama • Venezuela •

EUROPE • Belgium • Bulgaria • Denmark • Spain • Estonia • France • Hungary • Ireland • Iceland • Latvia • Lithuania • Macedonia • Norway • Netherlands • Poland • Portugal • Romania • United Kingdom • Russia • Czech Republic • Serbia • Slovenia • Sweden • Switzerland • Turkey •

AFRICA & MIDDLE EAST • Snnb • Abu Dhabi • South Africa • Algeria • Saudi Arabia • Dubai • Egypt • Jordan • Kuwait • Morocco • Oman • Qatar • Sharjah • Tunisia •

ASIA • South Korea • Hong Kong • India • Indonesia • Japan • Macau • Malaysia • Pakistan • Philippines • Singapore • Taiwan • Thailand • Vietnam •

OCEANIA • Australia • New Zealand



FREYSSINET
SUSTAINABLE TECHNOLOGY

www.freyssinet.com.au

A SUBSIDIARY OF  SOLETANCHE FREYSSINET