



EPTEC INFRASTRUCTURE SOLUTIONS

CAPABILITY STATEMENT

Asset Preservation & Rehabilitation

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Introduction

Eptec is a specialist engineering contractor in Asset Preservation and Rehabilitation. Our expertise is in delivering Asset Life Extension of complex operational assets through a range of solutions for Corrosion Protection, Concrete Rehabilitation, Fibre Reinforced Plastics, Waterproofing and Linings, and Insulation.

With offices across Australia, Eptec is positioned to deliver projects in all States and Territories. With a core workforce of over 250 people, Eptec can rapidly mobilise and deploy resources to anywhere in Australia.

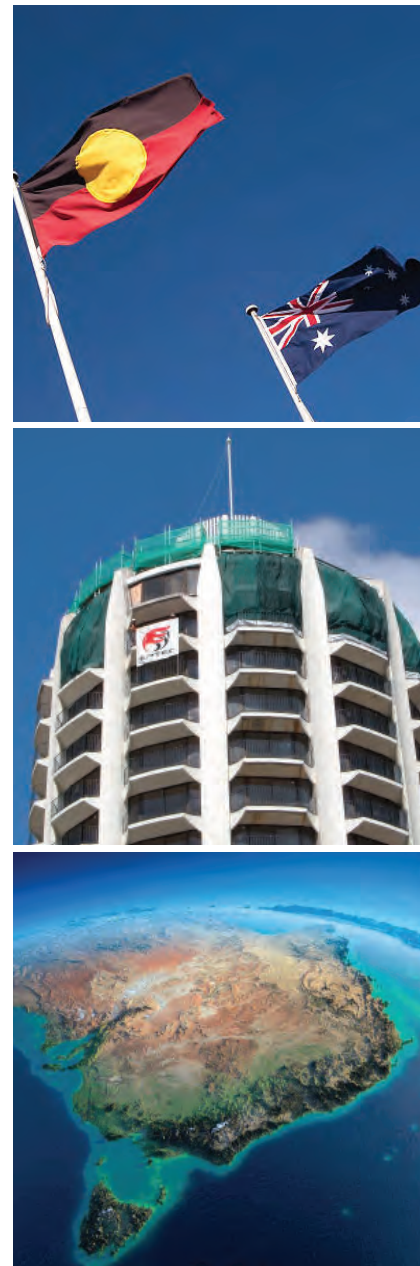
The workforce comprises qualified managers and engineers supported by experienced supervisors and permanent employees. One of Eptec's strengths is the use of our own permanent workforce rather than reliance on subcontractors. With skills developed over many years, Eptec guarantees highly responsive, flexible and committed teams ready to undertake projects in even the most remote areas.

Typically Eptec's solutions use the latest resins technology for coatings, cement grouts, epoxy grouts, waterproof membranes, high tech reinforcement such as carbon-fibre and many other innovative and specialised products. Eptec does not manufacture products and can call on the expertise and knowledge bank of all the major worldwide suppliers to assist in providing engineered solutions. We will often participate with manufacturers in the development and application of new products, always with a vision for improving industry techniques and safety and environmental awareness.

Our specialised services are applicable across a broad spectrum of industries including Defence, Water & Wastewater, Infrastructure and Energy & Resources.

Key Services

- Concrete Rehabilitation
- Corrosion Protection
- Fibre Reinforced Plastics
- Linings & Waterproofing
- Thermal Insulation



Technical And Management Expertise

Eptec's team of Managers, Supervisors and skilled operators have substantial experience in providing Australian Industry with quality, safe and innovative services.

Eptec managers have decades of experience managing critical and large scale projects throughout Australia. We have access to all major material suppliers and can tailor solutions for all situations.

This training and depth of knowledge coupled with our Quality, OHS&R and Environmental certification provides Eptec with a solid foundation to provide Corrosion Protection services throughout Australia.

From remote resource sites to metropolitan water plants, to naval vessels afloat, Eptec has the experience, capability and know how to ensure the preservation and rehabilitation of your assets.

Eptec holds current Painting Contractor Certification Program (PCCP) accreditation for Protective Coating Shop and Site Application and Removal of Hazardous Paints. All Eptec project supervisors have been NACE trained to CIP levels 1 and 2.



Current Certifications:

- AS/ NZS 9001:2008 Quality Management Systems
- AS/NZS 4801:2001 Occupational Health & Safety Management System
- AS/NZS ISO 14001:2004 Environmental Management System
- PCCP Class 1-4; Class 5A & 5B; Class 6

EPTEC's Management System has also been accredited by other bodies as follows:

- Roads and Traffic Authority (RTA) Accreditation of the EPTEC OHS&R Management System
- Sydney Water Certification of the EPTEC OH&S Management System
- Department of Commerce NSW Accreditation of EPTEC OH&S Management System
- Department of Commerce NSW Accreditation of EPTEC Environmental Management System



Memberships to Industry Associations:

- Australasian Corrosion Association (ACA)
- Australian Concrete Repairers Association (ACRA)
- Australian Industry Defense Network (AIDN)
- Australian Industry Group (AIG)
- Australian Institute of Protective Coatings (AIPC)
- Australian Shipbuilders Association (ASA)
- Australasian Society of Trenchless Technology (ASTT)
- Australian Ship Repairers Group (ASRG)
- Mining and Energy Services of Australia (MESCA)
- Defence Teaming Centre (DTC)
- Industry Capability Network (ICN)

CORROSION PROTECTION

Corrosion comes in many forms and has many causes but can affect all structures whether they are steel, concrete or other ferrous or non-ferrous metals. When corrosion strikes the results can be costly to repair, catastrophic when structural integrity is imperilled and in some cases risk environmental disaster.

Corrosion costs the Australian industry billions of dollars every year.

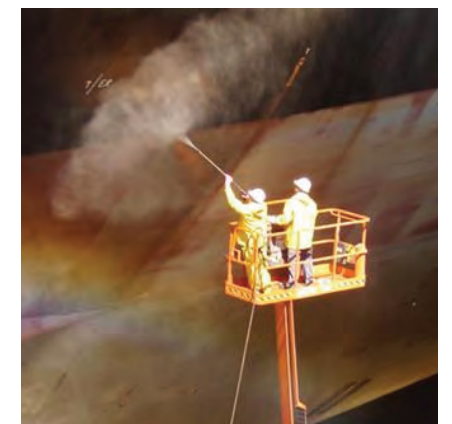
Corrosion Protection

Eptec is leading the way in reducing this cost and risk burden for Australian asset and infrastructure owners.

At Eptec we specialise in corrosion mitigation and protection of steel and concrete structures exposed to corrosive environments. Our close association with all major material suppliers (Australian and International) allows us to assist in the development of solutions to most corrosion problems. Whether the solution to a corrosion problem is a coating system, a flat sheet or cast in lining (HDPE, PVC) or a laminated FRP system Eptec will provide the solution.

Along with conventional methods of surface preparation (dry abrasive blasting, chemical cleaning, mechanical preparation methods) Eptec also offer environmentally sustainable methods including UHP water cleaning and wet slurry abrasive blasting.

Eptec has a proud history of providing corrosion protection services to a wide range of industries.



Our Services and Capabilities Include:

- Asset condition assessment
- Product Selection
- Surface preparation by abrasive blast cleaning, ultra high pressure water blasting, chemical descaling, hand and power tool cleaning and more specialised methods including Sponge Blasting Induction Coating Removal
- Application of proven high performance coatings by airless, air assisted and plural component spray equipment.
- Hazardous coating removal (PCCP accreditation)
- NACE CIP trained supervision on all projects

Structures and Applications:

- Process Plants
- Refineries
- Storage Tanks
- Power Stations
- Bridges
- Wharves & Jetties
- Desalination Plant
- Water & Waste Water Treatment Plants
- Navy Ships
- Armoured Vehicles
- Commercial Vessels





Albert Bridge

Location: Indooroopilly, QLD

Client: Queensland Rail

Scope of Work: Encapsulation, environmental controls, lead paint removal & management, abrasive blasting and painting of steel structures, completed under live conditions.



Sino Iron Project

Location: Cape Preston, Pilbara WA

Client: CITIC Pacific Mining Management / UGL Resources

Scope of Work: Protective coatings to steel and concrete structures with various coating materials, FRP lamination, site fabrication of spools and repair works, grouting, plastic welding.

Port Adelaide Viaduct Upgrade

Location: Port Adelaide, SA

Client: Baulderstone

Scope of Work: Encapsulation, environmental controls, lead paint removal & management, repair of steel structures, blasting and protective coating.



Spit Bridge

Location: Sydney, NSW

Client: Downer Mouchel

Scope of Work: Concrete crack rectification / Chemical injection, concrete spall repairs, epoxy coatings & lining works, installation / grouting of stop logs and grouting of pre-cast slabs.



Mt. Crosby Pipelines

Location: Brisbane, QLD

Client: Seqwater

Scope of Work: Encapsulation of piping systems using fixed scaffolding, full abrasive dry blast, Carboline three coat paint system and rugged & natural bush land terrain environment.



Peats Ferry Bridge

Location: Sydney, NSW

Client: DM Roads

Scope of Work: Scaffolding and encapsulation, concrete remediation, blasting and painting, steel repairs, installation of new traffic barrier system and new gantry rails.

Anzac Frigate Project

Location: Williamstown, VIC

Client: Tenix Pty Ltd (for the Royal Australian Navy)

Scope of Work: Abrasive blasting/painting from ship block stage to vessel consolidation, compartment completion and pre-delivery docking. Application of insulation, lagging and cladding to vessel systems and compartments. Post block preservation during consolidation and afloat.



Refurbishment of Recycling Crusher Structure

Location: Kalgoorlie, WA

Client: KCMG

Scope of Work: Refurbishment of the tertiary ore crusher including 3000psi water wash, sweep blast, hydroblasting of heavy rust scale, corrosion protection, structural steel repairs.



CONCRETE REHABILITATION

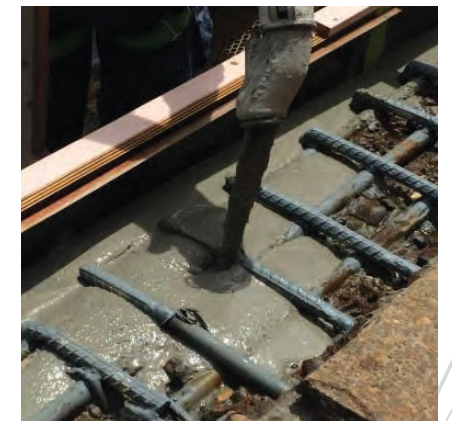
Concrete provides strength and stability to structural members of buildings, bridges, water retaining structures, sewage treatment plants, wharfs, etc. Therefore it is very important to protect concrete and any deterioration or damage to concrete must be repaired promptly in order not to compromise the integrity of structures built with concrete.

Concrete Rehabilitation

Concrete rehabilitation especially in critical infrastructures is as important as any other maintenance activity and must be carried out in a timely manner. Repairs performed at early stage would save extremely expensive remediations that may become necessary at latter stages.

Deterioration of concrete can be broadly categorised into cracking, spalling and corrosion. There are several causes for concrete deterioration and the main cause can either be carbonation or chloride induced corrosion of steel reinforcement or both.

Rehabilitation or repair involves the removal of deteriorated, damaged or defective concrete and then carrying out an appropriate repair procedure.



Our Services and Capabilities Include:

- Concrete remediation
- Concrete spalling repairs
- Concrete joint repairs
- Render reinstatement
- Brickwork repairs
- Façade restoration
- Building restoration
- Building strengthening
- Bridge repairs
- CFRP strengthening

Structures and Applications:

- Patch repair system using an epoxy or cementitious repair mortar;
- Moisture barrier system (protective coating);
- Steel reinforcement; replacement and protective coating;
- Cathodic protection, chloride extraction and re-alkalisation systems;
- Crack repair (epoxy/chemical/cementitious grout injection)



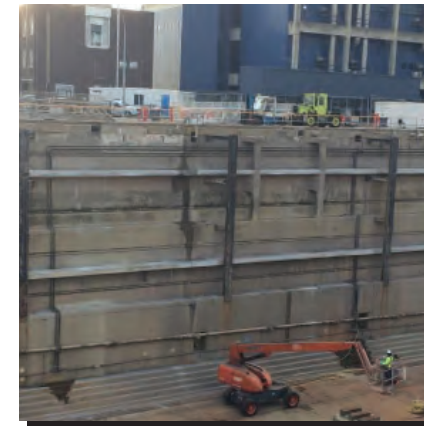


Flinders Street Station Refurbishment Project

Location: Melbourne, VIC

Client: Connex Victoria

Scope of Work: Concrete spalling repairs and remediation to building facade.



Captain Cook Graving Inner Dock

Location: Sydney, NSW

Client: Thales Australia

Scope of Work: Removing surface contaminants and debris, hydro demolition, phenolphthalein testing, preparation and installation of formwork, installment of repair mortar, removal of formwork.

Larrakeyah Barracks

Location: Darwin, NT

Client: Department of Defence / Spotless

Scope of Work: Concrete spalling and render repairs, waterproofing of concrete balconies and repair/replacement of concrete gutters and downpipes.

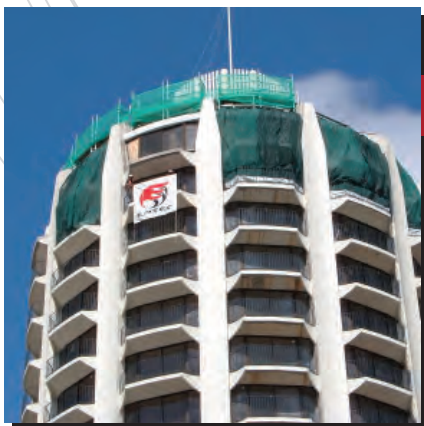


Convent Building, Mater Hospital Refurbishment

Location: Newcastle, NSW

Client: Abigroup Contractors Pty Ltd

Scope of Work: Waterproofing of walkways, torch-on membrane installation, structural repairs, concrete remediation and carbon fibre reinforcement.

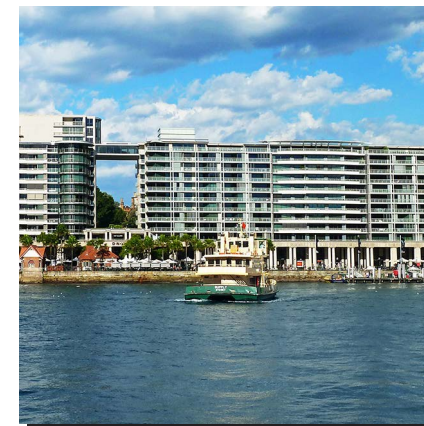


Gazebo Hotel

Location: Elizabeth Bay, NSW

Client: Co-ordinated Construction Company

Scope of Work: Concrete rehabilitation and spalling repairs, grout injection, construction joint repair and waterproofing.



Bennelong Apartments

Location: Sydney, NSW

Client: BMC

Scope of Work: Demolition block walls, Concrete repairs, Surface preparation (high pressure cleaning, scabbling), Cathodic Protection, - design, supply, installation and monitoring, Injection works, Shotcrete application.

Customs House Facade Rectification

Location: Neutral Bay, NSW

Client: United Group Limited

Scope of Work: Concrete remediation including (concrete spalling repairs, render reinstatement, brickwork repairs and general maintenance of facade).



Corin Dam Intake Tower

Location: Canberra, ACT

Client: Actew AGL

Scope of Work: Corrosion protection, chemical injection, concrete remedial, concrete structural works.



LININGS & WATERPROOFING

Eptec is able to provide a large range of services where structures require protection and maintenance from the effects of water and liquids, whether from groundwater, rainwater, wastewater or process streams.

Linings and Waterproofing

The importance of preserving and maintaining infrastructure in a world of ever decreasing water resources and stretched maintenance budgets, requires the application of the best products and services.

Eptec understands client needs when it comes to delivering value, and the need to address water based problems with effective long term solutions for both new and existing assets.

With the capability to provide assessment and site inspection services, we can determine and advise the most appropriate waterproofing and protection solution to complex water problems and deliver it with our own specialist workforce.



Our Services and Capabilities Include:

- Asset condition assessment and site survey
- Product evaluation, site trialling, testing and selection of materials and application procedures
- Pressure injection of urethane, acrylic and cement based grouts to provide sealing and waterproofing of structures and excavations in underground situations
- Pressure injection of structural resins for repair and rectification of buildings and civil structures
- All forms of liquid applied coatings to provide chemical and abrasion resistance (internal applications) or as waterproofing systems (external or internal applications).
- Thermally welded sheet membrane linings for the waterproofing and lining of structures, utilising HDPE, LDPE, PVC and TPO materials
- Cast-in HDPE sheet lining for the protection of concrete structures from chemical attack in wastewater, mining and industrial applications

Structures and Applications:

- Bridges
- Desalination Plants
- Large Concrete and Steel Pipelines
- Mining, Process and Chemical Plants
- Municipal and Industrial Wastewater Treatment Plants
- Potable and Recycled Water Treatment Plants
- Sewerage Infrastructure – Pipelines and Manholes
- Thermal Power Stations, Wind Farms
- Tunnels – Road and Rail
- Water Storages – Dams, Tanks, Reservoirs, Lagoons



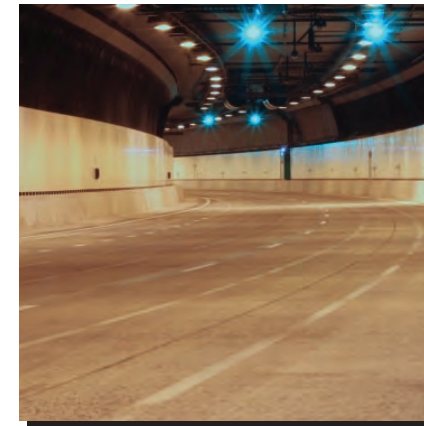


Sydney Metro 2 Tunnels and Stations

Location: Sydney, NSW

Client: John Holland, CPB Contractors and Ghella JV

Scope of Work: Installation of PVC, VLDPE, Bituthene membranes, waterstops, BA anchors, group injection systems. Crack and leak injection, concrete patchwork over multiple stations, cross passages and sites.



Sydney Harbour Tunnel Project

Location: Sydney, NSW

Client: Sydney Harbour Tunnel Company

Scope of Work: Ultra fine cement injection, concrete repair, coatings and maintenance waterproofing.

QAL Caustic Tanks

Location: Gladstone, QLD

Client: Queensland Alumina

Scope of Work: Refurbishment of two (2) x 55m diameter tanks.

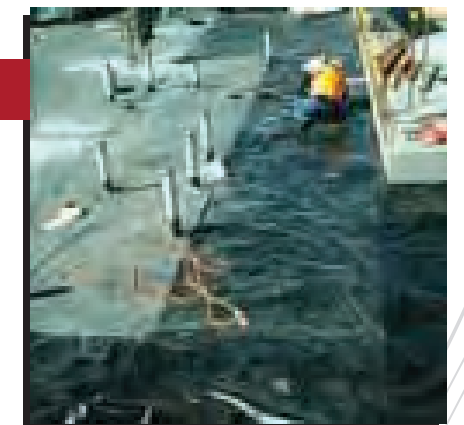


Darling Island Project

Location: Sydney, NSW

Client: Multiplex

Scope of Work: Supply and installation of thermoplastic HDPE waterproof membrane lining, waterproof membrane jointing.



Taiwan High Speed Rail Project

Location: Taiwan

Client: Bilfinger Berger

Scope of Work: Tunnel waterproofing membrane supply and installation.



Burnley Tunnel Project

Location: Melbourne, VIC

Client: Transfield Obayashi Joint Venture

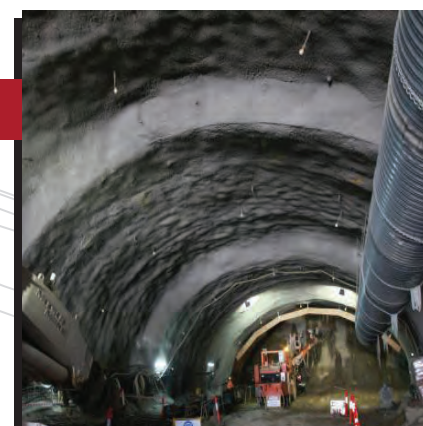
Scope of Work: Chemical grout injection, membrane repairs against major ground water inflows.

Inner Northern Busways Section 5 Project

Location: Brisbane, QLD

Client: Clough Seymour Whyte Joint Venture

Scope of Work: HDPE membrane supply, installation & termination.

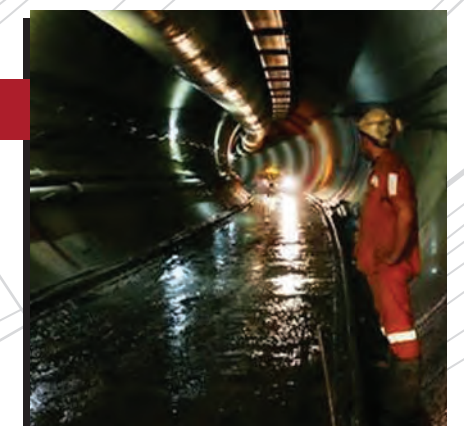


Epping Chatswood Rail

Location: Sydney, NSW

Client: Thiess Hochtief Joint Venture

Scope of Work: Spray application of liquid waterproofing membrane to station caverns and chemical injection waterproofing in running tunnels / station caverns.



FIBRE REINFORCED PLASTICS

With extensive experience in Reinforced Composites, Eptec is able to provide FRP solutions to a large range of industries that require protection and maintenance from the effects of water and liquids, whether from groundwater, rainwater, wastewater or process streams.

Fibre Reinforced Plastics

With the capability to provide assessment and site inspection services, we can determine and advise the most appropriate FRP solution to complex issues and deliver it with our own specialist workforce.



Our Services and Capabilities Include:

- Asset condition assessment and site survey
- Preparation of isometric drawing
- Site installation, testing and commissioning of FRP pipes
- FRP workshop and site spooling, conductive and non-conductive jointing, selection of materials and application procedures
- Design and construct FRP platforms & handrails
- Supply and install FRP gratings
- FRP lining of underground fuel storage tanks for unleaded and leaded fuel
- All forms of liquid applied FRP coatings to provide chemical and abrasion resistance
- Butt & Strap jointing
- Bell & Spigot jointing

Structures and Applications:

- Potable and Recycled Water Treatment Plants
- Municipal and Industrial Wastewater Treatment Plants
- Sewerage Infrastructure – Relining of Pipelines and Manholes
- Desalination Plants
- Mining, Process and Chemical Plants
- Thermal Power Stations
- Fuel Storages – Tanks
- Chemical Storage Tanks- Cleaning, Inspection and Repair
- Mast Access Platforms and Handrails for Defence Ships - Design and construct





Sydney Desalination Project

Location: Sydney, NSW

Client: John Holland / RPC Technologies

Scope of Work: FRP workshop spooling 100mm dia to 650mm dia pipes; FRP site jointing works 400mm dia to 1800mm dia pipes.



Capital Windfarm

Location: Bungendore, NSW

Client: Suzlon

Scope of Work: Maintenance of the wind turbines including mechanical cleaning, application of protective coating and fibreglass repairs.

Woodman Point STP / Odour Control Project

Location: Woodman Point, WA

Client: RPC Technologies

Scope of Work: FRP spooling and site jointing works.



Gas Meter Set Painting

Location: Perth, WA

Client: ATCO Gas Australia

Scope of Work: Blasting and painting of live meter set, gas monitoring and safety checks.



Anzac Frigate Project – Mast Access Platform

Location: Williamstown, VIC

Client: Royal Australian Navy Tenix Defence systems

Scope of Work: Design, supply & fabrication of FRP mast access platforms.



Olympic Dam Project

Location: Sydney, NSW

Client: Western Mining Corporation

Scope of Work: Spooling of FRP pipe systems, shop manufactured fittings, quality assurance procedures, conductive pipework spools and ongoing testing.

Sino Iron Project

Location: Cape Preston, Pilbara WA

Client: CITIC Pacific Mining Management / UGL Resources

Scope of Work: Protective coatings to steel and concrete structures with various coating materials, FRP lamination, site fabrication of spools and repair works, grouting, plastic welding.



Port Kembla Copper ABB Engineering

Location: Sydney, NSW

Client: ABB Engineering Construction Pty Ltd

Scope of Work: FRP and PVC pipe work and FRP grating, design and scheduling for construction, preparation of isometrics, supervision of overseas manufacture, site installation.



THERMAL INSULATION

Eptec has developed the expertise to complete projects for all standards of hot cold and cryogenic application. Eptec offers the resources of worldwide thermal insulation industry leaders combined with an intimate knowledge of the local working environment. Combining local management with the skill of worldwide specialists provides Australian Industry with a reliable and effective team with the ability to complete large and small projects under many varied conditions.



Thermal Insulation



The application of insulation for piping, ducting and tanks is part of Eptec's capabilities and also through joint venture agreements with international specialists in supply and installation.

Industries serviced include marine, petrochemical, power generation defence and process industries amongst others.

Over many years, Eptec has carried out insulation activities on various Naval and Commercial vessels and industrial insulation around Australia including the insulation of 10 new construction Anzac Frigates for the Royal Australian and Royal New Zealand Navies, 4 new construction Inshore Patrol Vessels and 2 new construction Offshore Patrol Vessels for the Royal New Zealand Navy.

During this period we have also completed various projects involving supply and application of insulation/cladding for industrial purposes. Eptec's involvement in the insulation/cladding industry is well recognised throughout Australia.

Our Services and Capabilities Include:

- Marine insulation
- Hot and cold applications
- Cryogenic applications
- LNG and LPG plants
- Petrochemical plants
- Power stations

Structures and Applications:

- Polyamide panels insulation
- Mineral wool panels insulation
- Polyester blanket
- Navy Board panels insulation
- Foil faced and un-faced sheeting blanket



HVAC Ducting Insulation:

- Rockwool blanket or moulded section faced and un-faced.
- Mineral wool blankets faced or un-faced

Pipe Insulation and Lagging:

- Armourflex formed and flat sheet, faced and un-faced.
- Mineral wool formed and flat sheet, faced and un-faced.
- Rockwool formed and flat sheet, faced and un-faced.





HMAS Warramunga

Location: Williamstown, VIC

Client: Tenix / BAE Australia

Scope of Work: Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.



HMAS Arunta

Location: Williamstown, VIC

Client: Tenix / BAE Australia

Scope of Work: Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.

HMAS Ballarat

Location: Williamstown, VIC

Client: Tenix / BAE Australia

Scope of Work: Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.



HMAS Toowoomba

Location: Williamstown, VIC

Client: Tenix / BAE Australia

Scope of Work: Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.



HMAS Perth

Location: Williamstown, VIC

Client: Tenix / BAE Australia

Scope of Work: Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.



HMAS Stuart

Location: Williamstown, VIC

Client: Tenix / BAE Australia

Scope of Work: Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.

HMAS Parramatta

Location: Williamstown, VIC

Client: Tenix / BAE Australia

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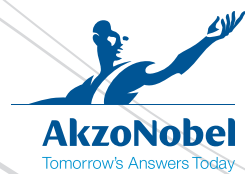
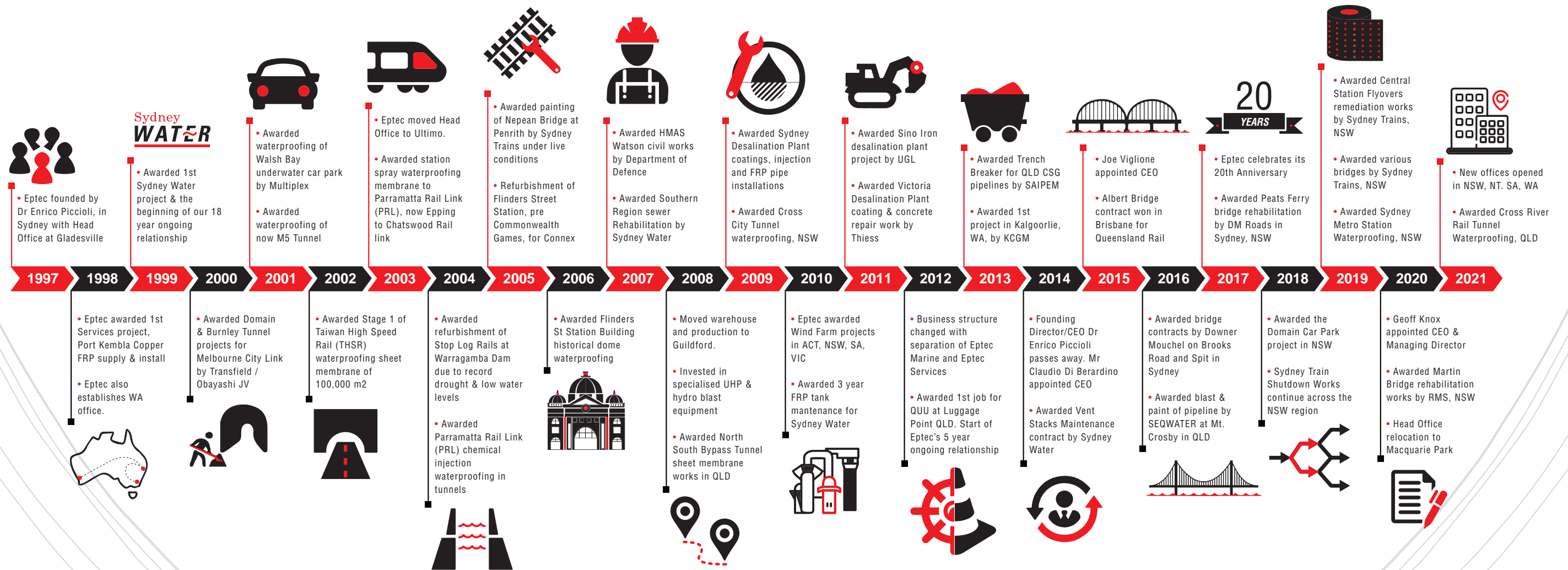
HMNZS Te Mana & Te Kaha

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