



EPTEC

Asset Preservation
& Rehabilitation

When Risk Matters!

CAPABILITY STATEMENT



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KEY SERVICES

Corrosion Protection



Concrete Rehabilitation



Linings & Waterproofing



Fibre Reinforced Plastics



Thermal Insulation



INTRODUCTION

EPTEC is a specialist industrial contractor in Asset Preservation and Rehabilitation. Our expertise is engineered solutions using resin technology to provide corrosion protection, concrete rehabilitation, glass reinforced plastics, waterproofing & linings and thermal 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 & Marine, Water & Wastewater, Infrastructure and Energy & Resources.

CORROSION PROTECTION

Corrosion costs Australian industry billions of dollars every year. 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 imperiled and in some cases risk environmental disaster.

EPTEC is leading the way in reducing this cost and risk burden for Australian asset and infrastructure owners. At EPTEC we specialize 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 offers 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 sodium bicarbonate and ice blasting.
- 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 and Jetties
- Desalination Plants
- Water and Wastewater Treatment Plants
- Navy Ships
- Armoured Vehicles
- Commercial Vessels

SIGNIFICANT PROJECTS

PROJECT NAME	LOCATION OF WORK	SCOPE OF WORK	CLIENT	PROJECT PHOTO
Sino Iron Project	Cape Preston, Pilbara WA	Protective coatings to steel and concrete structures with various coating materials, FRP lamination, site fabrication of spools and repair works, grouting, plastic welding.	CITIC Pacific Mining Management / UGL Resources	
Port Adelaide Viaduct Upgrade	Port Adelaide, SA	Encapsulation, environmental controls, lead paint removal & management, repair of steel structures, blasting and protective coating	Boulderstone	
Sydney Desalination Plant	Sydney, NSW	Ultra High Pressure water blasting, concrete surface preparation and protective coating application.	John Holland	
Anzac Frigate Project	Williamstown, VIC	Abrasive Blasting & Painting, Thermal Insulation, Sheet Metal Work, Reinforced Plastic Composites Design, Supply & Installation & Ship Services to Ships 4, 5, 6, 7, 8, 9 & 10.	Tenix Pty Ltd (for the Royal Australian Navy)	
Spirit Of Tasmania 1 & 11 (2004, 06, 07, 08, 09, 10, 11)	Sydney, NSW	Surface Preparation & Coating of Deck & External Surfaces (Complete External Hull Coating, Superstructure' Topsides	Thales Australia Pty Ltd (Formerly ADI)	
Flinders Street Station Refurbishment Project	Melbourne VIC	Abrasive Blasting & Protective Coating, Steel Work Erection, Dome Roof Waterproofing, Steel Beam Strengthening, Concrete Slab Repair, Carbon Fibre Installation, Drainage Waterproofing, Grout Injection, Epoxy Injection	Connex Victoria	
Capital Windfarm	Bungendore, NSW	Maintenance of the wind turbines including mechanical cleaning, application of protective coating and fibreglass repairs .	Suzlon	
FFG Frigate Upgrade Project	Sydney, NSW	Preparation and coating of external hull, decks & internal areas, Hazardous (Zinc-Chromate) Coating Removal	Thales Australia Pty Ltd (Formerly ADI)	
Refurbishment of Recycling Crusher Structure	Kalgoorlie WA	Refurbishment of the tertiary ore crusher including 3000psi water wash, sweep blast, hydroblasting of heavy rust scale, corrosion protection, structural steel repairs	KCMG	

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 the structures.

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 can save 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 include:

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

EPTEC's corrosion repair procedures include:

- 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)

EPTEC is an experienced and approved applicator for several suppliers of concrete coatings and repair systems including Sika, Parchem, MC, BASF, etc.

Major concrete rehabilitation and repair works undertaken by EPTEC include::

- Larrakeyah Barracks in Darwin (NT) – Concrete Repair
- Customs House – Building Façade Restoration
- RAAF Base Darwin Officers Building - Building Repairs and Restoration

SIGNIFICANT PROJECTS

PROJECT NAME	LOCATION OF WORK	SCOPE OF WORK	CLIENT	PROJECT PHOTO
Flinders St. Station	Melbourne, VIC	Concrete spalling repairs and remediation to building facade,	Connex - Victoria	
Larrakeyah Barracks	Darwin, NT	Concrete spalling and render repairs, waterproofing of concrete balconies and repair/replacement of concrete gutters and downpipes.	Department of Defence / Spotless	
Gazebo Hotel	Elizabeth Bay, NSW	Concrete rehabilitation and spalling repairs, grout injection, construction joint repair and waterproofing	Co-ordinated Construction Company	
Customs House Facade Rectification	Neutral Bay, NSW	Concrete remediation including (concrete spalling repairs, render reinstatement, brickwork repairs and general maintenance of façade),	United Group Limited	
Walsh Bay Project	Sydney, NSW	Temporary waterproofing of basement slab including epoxy plug and polyurethane injection of pile penetrations.	Multiplex Construction	
Convent Building, Mater Hospital Refurbishment	Newcastle, NSW	Waterproofing of walkways, torch-on membrane installation, structural repairs, concrete remediation and carbon fibre reinforcement	Abigroup Contractors Pty Ltd	
RAAF BASE - Darwin Officers Mess Building Repairs	Darwin, NT	Concrete remediation, anti-carbonation coating system, waterproofing, carbon fibre strengthening, façade repairs, rendering	Spotless	
Corin Dam Intake Tower	Canberra, ACT	Corrosion protection, chemical injection, concrete remedial, concrete structural works	Actew AGL	

LININGS AND 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.

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 the 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:

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

SIGNIFICANT PROJECTS

PROJECT NAME	LOCATION OF WORK	SCOPE OF WORK	CLIENT	PROJECT PHOTO
Sydney Central Light Rail Station Refurbishment	Sydney, NSW	Waterproofing, , excavation, concreting/asphalting and associated civil works	RailCorp - NSW	
QAL Caustic Tanks	Gladstone, QLD	Refurbishment of two (2) x 55m diameter tanks	Queensland Alumina	
Taiwan High Speed Rail Project	Taiwan	Tunnel waterproofing membrane supply and installation	Bilfinger Berger	
Inner Northern Busways Section 5 Project	Brisbane , QLD	HDPE membrane supply, installation & termination	Clough Seymour Whyte JV	
Sydney Harbour Tunnel Project	Sydney, NSW	Ultra fine cement injection, concrete repair, coatings and maintenance waterproofing	Sydney Harbour Tunnel Company	
Darling Island Project	Sydney, NSW	Supply and installation of thermoplastic HDPE waterproof membrane lining, waterproof membrane jointing	Multiplex	
Burnley Tunnel Project	Melbourne, VIC	Chemical grout injection, membrane repairs against major ground water inflows	Transfield Obayashi Joint Venture	
Epping Chatswood Rail	Sydney, NSW	Spray application of liquid waterproofing membrane to station caverns and chemical injection waterproofing in running tunnels / station caverns.	Thiess Hochtief JV	
Penrith STP	Sydney, NSW	Manhole rehabilitation, epoxy application and installation of AKS lining system	Transfield Services / Sydney Water	
Ultimo Street Carrier Rehabilitation Works	Sydney, NSW	Relining of FRP pipe to existing Ovi-form sewer	Sydney Water	

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.

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 nonconductive 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



SIGNIFICANT PROJECTS

PROJECT NAME	LOCATION OF WORK	SCOPE OF WORK	CLIENT	PROJECT PHOTO
Sydney Desalination Project	Sydney, NSW	FRP workshop spooling 100mm dia to 650mm dia pipes; FRP site jointing works 400mm dia to 1800mm dia pipes	John Holland / RPC Technologies	
Woodman Point STP / Odour Control Project	Woodman Point, WA	FRP spooling and site jointing works	RPC Technologies	
Port Kembla Copper Project FRP Piping	Sydney, NSW	FRP and PVC pipe work & FRP floor grating, preparation of isometrics, supervision of overseas manufacturer, QA & delivery, site installation & management	ABB Engineering Corporation	
WMC Olympic Dam Project (Cusx & Usx)	Sydney, NSW	FRP pipe jointing; FRP pipe shop spooling of over 10km	Western Mining Corporation	
Ravensthorpe Nickel Project	Ravensthorpe, WA	650mm dia. FRP seawater supply pipe line shop spooling	RPC Technologies	
Kogan Creek Power Station project	Kogan Creek, QLD	FRP site jointing works	Lifese Engineering Pty Ltd	
Anzac Frigate Project – Mast Access Platform	Williamstown, VIC	Design, supply & fabrication of FRP mast access platforms	Royal Australian Navy Tenix Defence systems	
Sino Iron Project	Cape Preston, Pilbara WA	Protective coatings to steel and concrete structures with various coating materials, FRP lamination, site fabrication of spools and repair works, grouting, plastic welding.	CITIC Pacific Mining Management / UGL Resources	

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.

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.

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

Structural type insulation:

- 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.

SIGNIFICANT PROJECTS

PROJECT NAME	LOCATION OF WORK	SCOPE OF WORK	CLIENT	PROJECT PHOTO
HMAS Warramunga	Williamstown, VIC	Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.	Tenix/BAE Australia	
HMAS Ballarat	Williamstown, VIC	Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.	Tenix/BAE Australia	
HMAS Perth	Williamstown, VIC	Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.	Tenix/BAE Australia	
HMAS Parramatta	Williamstown, VIC	Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.	Tenix/BAE Australia	
HMAS Arunta	Williamstown, VIC	Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.	Tenix/BAE Australia	
HMAS Toowoomba	Williamstown, VIC	Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.	Tenix/BAE Australia	
HMAS Stuart	Williamstown, VIC	Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.	Tenix/BAE Australia	
HMNZS Te Mana & Te Kaha	Williamstown, VIC	Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.	Tenix/BAE Australia	
Project Protector Wellington for the NZ Navy	Williamstown, VIC	Application of insulation/cladding for all compartments during block fabrication, consolidation and afloat.	Tenix/BAE Australia	

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 Repairer's Group (ASRG)
- Mining and Energy Services of Australia (MESCA)
- Defence Teaming Centre (DTC)
- Industry Capability Network (ICN)

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