



When Risk Matters!

CAPABILITY STATEMENT

Tunnels & Tunneling

Introduction

Eptec is a specialist industrial contractor in Asset Preservation and Rehabilitation. Our expertise is engineered solutions using resin technology to provide concrete rehabilitation, corrosion protection, 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, Water & Wastewater, Infrastructure and Energy & Resources.



Corrosion Protection



Concrete Rehabilitation



Linings & Waterproofing



Fibre Reinforced Plastics



Thermal Insulation

Our Services

Eptec Pty Ltd has been involved with most tunnels constructed in Australia over the past ten years.

Eptec Pty Ltd has established itself as the premier contractor for waterproofing of tunnel and underground structures. Operating in a relatively small market as compared to Europe and North America, Eptec has continued to keep abreast of latest developments in materials, equipment and systems for this industry.

Our key services to the tunnelling industry are:

- Tunnel Waterproofing using Sheet Membranes – PVC, PP, TPO, LDPE
- Tunnel Waterproofing systems using Sprayed/Liquid Applied Membranes
- Tunnel Sealing – Cement Grouting
- Tunnel Sealing – Chemical Grouting
- Corrosion Protection – Abrasive Blasting and Protective Coatings
- Industrial Services- Ultra high hydroblasting and vacuum trucks
- Tunnel Formwork Systems – delivered through CIFA spA
- Rock and Strata Stabilisation
- Tunnel Maintenance Services – Water control, Sealing, Rock Stabilisation, Concrete Repairs, Industrial Cleaning, Minor Works



Tunnel WaterProofing

Sheet Membranes

Eptec Pty Ltd is an experienced contractor in the supply and site installation of thermoplastic sheet membranes, with a specialisation in the civil engineering and tunnelling industries. We bring:

- Staff and workers experienced in the techniques, equipment, materials and testing systems for the installation of thermoplastic sheet tunnel membranes including PVC, PP, TPO, LDPE
- A company that understands and is conversant with international standards applicable to this industry including DVS and ASTM
- Established processes and procedures for quality and safety applicable to the tunnelling industry

Key Projects:

- Taiwan High Speed Rail Project - Running Tunnels
- North South Bypass Tunnel (Clem 7) Tunnel – Cross Passages, Access Shafts
- City West Cable Tunnel – Surface works



Tunnel Sealing

Spray Applied Membranes

With substantial experience in the application of liquid protective coatings by high pressure spray, Eptec Pty Ltd is able to apply a wide range of specialist waterproof coatings. Whilst not as widely used as sheet membranes in the tunnelling industry, liquid applied coatings have gained acceptance in particular tunnel applications. We are able to:

- Provide staff, supervision and workers highly experienced in the application of liquid coatings by various application techniques and equipment types
- Experienced and trained workers in high pressure airless spray systems and equipment
- Established processes and procedures for quality and safety applicable to spray applied coatings

Key Projects:

- Epping to Chatswood Rail Link - Station caverns
- North South Bypass Tunnel (Clem 7) Tunnel – Various
- Cross City Tunnel – Maintenance works
- M2 Tunnel – Cubicle niches



Tunnel Sealing

Cementitious Grouting

Eptec is able to undertake a range of grouting using cement based grouts for various applications including:

- High pressure injection grouting with ultra-fine and micro-cements for waterproofing and sealing applications
- Low pressure injection grouting for void filling, stabilisation, waterstopping
- Foundation, machine and precision grouting
- Established processes and procedures for quality and safety applicable to the tunnelling industry

Key Projects:

- Sydney Harbour Tunnel - Ultra fine cement injection to IMT Units
- Epping to Chatswood Rail Link – Rail slab grouting
- North South Bypass Tunnel (Clem 7) Tunnel – Shotcrete void filling, bridge slab stabilisation grouting, pipe grouting
- Cross City Tunnel - Maintenance works



Tunnel Sealing

Chemical Grouting

Eptec has undertaken a wide range of chemical grouting by pressure injection methods for many applications. A large proportion of our experience has been in tunnels which require the best in expertise and performance.

We offer:

- High pressure injection grouting with several types of polyurethanes and acrylates for waterproofing in various tunnel structures including running tunnels, cross passages, adits, portals, terminations
- Waterstopping of high pressure, high volume water flows
- High pressure injection grouting with low viscosity epoxies for structural strengthening and repairs
- Established processes and procedures for quality and safety applicable to the tunnelling industry

Key Projects:

- Domain and Burnley Tunnel, Melbourne City Link - PU and acrylate injection running tunnels
- Epping to Chatswood Rail Link – PU Injection running tunnels, cross passages, adits
- North South Bypass Tunnel (Clem 7) Tunnel – PU Injection to segment connections, epoxy injection to smoke ducts
- Cross City Tunnel - Maintenance works PU injection
- Sydney Harbour Tunnel – Driven tunnels PU Injection



Tunnel Formwork

CIFA Tunnel Formwork Systems

Eptec Pty Ltd has been associated with CIFA spA since 2004 in promoting their worldwide tunnel formwork systems. In acting as a representative for CIFA's extensive and proven formwork technologies, Eptec has gained significant expertise in this field.

We can offer:

- Tunnel formwork equipment for running tunnels, transition structures, cross passages, tunnel segments, specials
- Formwork traveller gantries
- Waterproofing membrane installation gantries – basic and automated
- Local representative assistance for procurement, site assembly, testing and commissioning

Key Projects:

- Singapore Deep Tunnel Sewer System
- Airport Link, Brisbane – Waterproofing membrane installation gantries, Smoke Duct traveller forms



Tunnel Maintenance Maintenance Services

Eptec Pty Ltd has provided maintenance services to tunnel operators in Australia over the last decade. We have provided a range of services on a periodic shutdown and special project basis. We understand the particular difficulties of tunnel maintenance and accessibility.

We can offer:

- The ability to provide a wide range of specialist services all from within Eptec- single source
- Engineers, Supervisors and Operators with tunnel maintenance experience – Multitasking
- An understanding of tunnel shutdown and maintenance procedures – Safety & Engineering
- Established processes and procedures for quality and safety applicable to the tunnelling industry - Experience

Key Projects:

- Sydney Harbour Tunnel, Sydney
- Cross City Tunnel, Sydney
- Eastern Distributor Tunnel, Sydney
- Epping to Chatswood Rail Link, Sydney
- M2 Tunnel, Sydney



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