Chemcote Specialty Coatings

Heating, Ventilation & Air Conditioning

Heating Ventilation & Air Conditioning
Capabilities and Products

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Heating Ventilation & Air Conditioning Capability List

About Chemcote Specialty Coatings

We specialise in providing anti corrosion & abrasion solutions for all assets throughout Australia. Our team includes NACE and ACA certified coating inspectors. Customers include Energy Australia and many co-generation plants.

Chemcote provides the following services for the East Coast of Australia:

- Abrasive blasting, Glass Bead Blasting & Ultra High Pressure Water Blasting
- Supply of Long-Term Corrosion Protection through specialist protective coating specifications & systems
- Painting & Coating of all types and sizes of critical equipment
- Inspection of existing or new coating systems
- Fibre glass parts construction & repairs
- Condition reports for corrosion-prone equipment
- Repairs to existing coating systems and corrosion damaged equipment
- Total coatings replacement using the tough, impermeable Chemco range (Chemtect vinyl ester glass flake series) for aggressive, immersed environments
- Replacement of internal and external coatings using Chemco's wet, surface and environment tolerant coatings (Epochem series), no abrasive blasting required
- Lining systems reducing scale build up for tanks and pumping systems, improving fluid flow efficiency
- Concrete floor coatings and linings
- Fully guaranteed coating solutions where we specify, supply and apply.
- Critical sealing faces, wear ring lands and dimensional protection are a specialty.

Industries we service

- Heating Ventilation Air-Conditioning
- Oil & Gas, Petrochemical, Marine,
- Chemical Containment and Transportation.
- Mining & Mineral Processing & Steel Manufacturing.
- Power Generation and Transmission.
- Water & Sewerage

Our range of expertise

- Heat exchangers
- Water-boxes & End Covers
- Pipe work – seawater conduit, Intake screens
- Pumps
- Heat Exchanger Vessel
- Butterfly valves
- Concrete bunds
- CW Systems

Sea Water Volute

After masking and abrasive blasting

Re-mask and coating application

Eye of the impeller was treated using Kevlar and RB 300 & RP 500

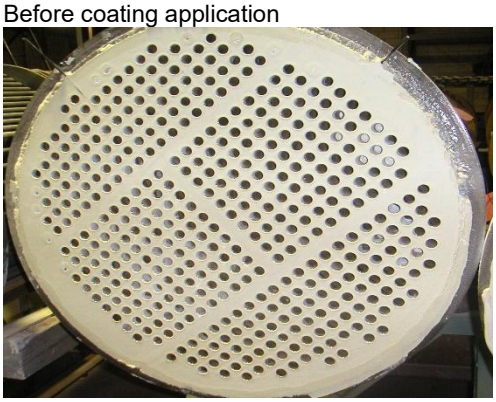
After external coating application

Industry	HVAC
Date	March 2006
Substrate	Admiralty bronze 200/200
Products	Chem-tect RB 300 Ceram-chem RP 500
Environment	Ambient Sea Water
Challenge	Original pumps were suffering severe corrosion and cavitation.
Chemcote's Solution	We recommended the use of RB 300 series @ 1200µm nominal thickness and top coat with 2 coats of RP 500 @ 300µm Pre machine critical dimensions
Scope	Abrasive blast to ISO 8501-1 cleanliness standard with a minimum 75µm profile. Mask and protect all area not to be coated Application of 2 coats of RB300 series Application of RP 500 in two coats to improve fluid efficiency Post machine to allow re-assembly Balance impeller as required
Results	Some engineering changes were made to the strainer system prior to the installation of these 3 pumps. Coupled with our coating system, these pumps can now expect long term protection - with minimal maintenance. Tube sheets, pipe-work and many other components have been protected using similar methods both on site and within our fully equipped workshop located in Wollongong.

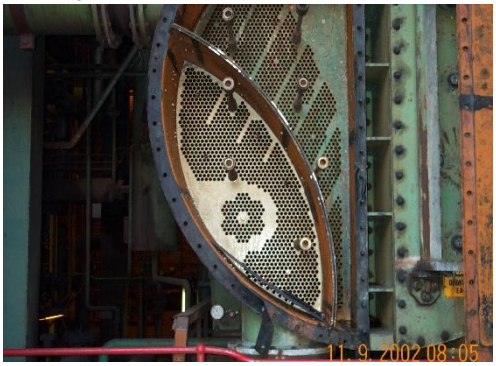
Chiller Water Boxes

Surface Preparation

Before coating application



Coating application of RB300



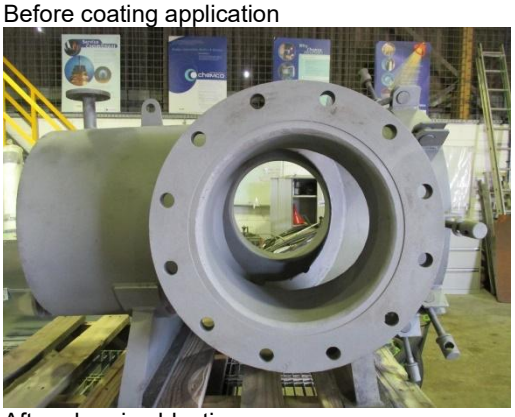
After coating application

Industry	Petrochemical - Oil Refinery
Date	2002
Substrate	Mild Steel water boxes & bronze tube sheets
Products	Chem-tect RB 300 series
Environment	60-80°C, re-circulated & sea water
Challenge	Tube sheets were severely corroded due to a galvanic reaction between dissimilar metals. A 72-hour shutdown period was utilised to complete the work. The tube internals had to be protected from abrasive blasting damage. There was also severe pitting corrosion on sealing faces.
Chemcote's Solution	Tube internals were protected by inserting specially designed plastic caps. The entire face was abrasive blasted to ensure surface is clean and free of contamination. RB 300 was applied to tube-sheet face, followed by post machine sealing faces to ensure division plates mate, preventing interference and by-passing. Caps were removed. Chemco also supplied nylon inserts to prevent tube end corrosion & cavitation.
Results	This client has become one of our regular customers. Chemcote has now conducted numerous jobs for this client over the past years, including multiple heat exchanger units. The photo to the left was taken during a 4-year inspection of another unit coated with the same coating and showed no signs of deterioration.

Basket Strainer

Before coating application

Before coating application



After abrasive blasting

After external coating application

Industry	Power Generation
Date	February 2015
Substrate	Mild Steel body with Stainless Steel perforated basket
Products	Chem-tect RB 300 series
Environment	Internals Chem-tect RB 300, External Epo-Chem RL 500PF& RC 500GTC
Challenge	Inspection of the existing rubber lining illustrated localised pitting on the internals, particularly around the sealing ring. Short turnaround time
Chemcote's Solution	Due to the number of metallic salts found after the preliminary abrasive blast it was necessary to hot wash the strainer components to lower the salt content. Re-abrasive blasting was carried out and composite materials were chosen to rebuild the metal loss found on the tube plate support ring. Rebuilding this metal loss using our reinforced glass technique. Chemcote ensured the tube plate had a flat area to rest on the mounting/sealing ring, in turn reducing costs and the additional time involved with machining.
Scope	Remove all fittings. Remove Rubber lining from all surfaces using DEC Services. Machine rebates on all 4 flange faces. Abrasive blast to AS 1627.4 Class 3, nominal 75µm profile. Application of RB 300 Series in two coats where required to obtain minimum thickness of 1,000µm. Carry out QA, spark test at 8kV and DFT to confirm coating integrity. Apply 3mm rubber as gasket and basket ring Application of 2 coat of RL 500PF to all externals where not corroded. Application of 2 coats of Luxathane R G21. Application of Caution Stencil in safety yellow in a visible area
Results	Strainer was completed in time for re-assembly. RB 300 will provide long term protection coupled with the non-toxic anti-foul coating will prevent marine growth for a minimum of 5 years.