

CASE STUDY: RB300 & RL500PF series



C E A

Corrosion Solutions

CLIENT

Pumping & Fluid Flow Industry

APPLICATION DATE

March 2010

EQUIPMENT

1.2m diameter Diffuser bowl - part of a multistage Sea Water fire pump system for offshore duties.

SCOPE OF WORK

To provide a coating system offering a long term corrosion solution in a course sea water duty at ambient temperatures. The RB300 series was selected for its outstanding ability to offer long term protection for primed sea water fire pumps, in excess of 20 years, giving the end user the confidence that the pump will perform and not fail due to long term corrosion issues in an emergency situation. RL500PF was selected for the externals for its ease of application and outstanding long term protection as a primer finishing system.

PRODUCTS

Internals: RB300 Series with the addition of a silicon carbide layer @ 1,500µm nominal thickness, finished with a veil coat of Chemglide @ 250µm nominal thickness to reduce fluid friction and improve efficiency.

Externals: Applied with RL500PF @ 150µm.

SUBSTRATE

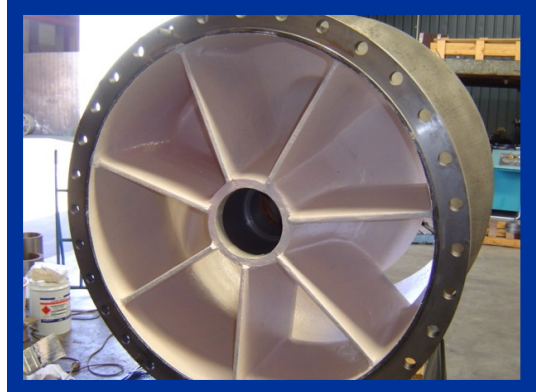
Cast steel diffuser bowl.

PROCEDURE

- Clean & protect all machined areas to prevent damage from abrasive blasting
- Abrasive blast to Class 3 AS1627.4, cleanliness standard with a minimum 75µm profile
- Application of 3 coats of RB300 series providing peace of mind in excess of 20 years minimum.
- Application of Chem-tect RB300GL to reduce fluid friction in the boundary layers & increase efficiency.
- Final QA checks - DFT checks and Spark testing.
- Application of RL500PF to the externals after preparation.

CEA's CREDENTIALS

Replacement costs far exceeded the cost of refurbishment with the best possible result. Chemco Glass flake vinyl ester systems have a proven track record protecting components against sea water attack. Components coated with Chemco Glass flake vinyl ester systems for use within a sea water environment are still performing after 25 years of service.



Photographs:

Top: Manufacture of new diffuser bowl
Middle: RB300 series applied to prepared casting, application of Chemglide to reduce fluid friction & increase flow
Bottom: Application of RL500PF to the externals as a finish coat.

Victoria
19-21 Bailey Ave
Keilor East VIC 3033
Tel: 1300 668 402,
Fax: (03) 9336 2255
Email: vic@corro.com.au

New South Wales
5/106 Gipps St
Wollongong NSW 2500
Tel: 1300 668 402
Fax: (02) 4225 9011
Email: nsw@corro.com.au

Western Australia
59 Burlington Street
Naval Base, WA 6165
Tel: 1300 668 402
Fax: (08) 9437 1088
Email: wa@corro.com.au

Queensland
Young Street, Gladstone QLD 4680
PO Box 5053, Gladstone 4680
Tel: 1300 668 402
Fax: (03) 9336 2255
Email: qld@corro.com.au