

# PUMP PROTECTED FROM SODIUM HYPOCHLORITE

**CORROSERVE**

CASE STUDY

## Protection in Base Alkali Conditions

A newly manufactured pump casing, impeller and cover would be subject to service conditions of sodium hypochlorite at a maximum concentration of 15%. To prolong the service life of the pump all wetted internal surfaces required protective lining to against base alkali solutions.

The pump casing was rebated to accommodate the coating process, all areas not requiring coating were masked and all parts abrasive blasted. A blow down, sweep and vacuum followed to remove all dust.

Corroglass AR4, a specialist coating designed to give best resistance in base environments, was applied in multiple coats to achieve a DFT of 1000-1200µm.

The impeller was check balanced, pre and post coating, on Corroserve's Schenk dynamic balancing machine to ensure it remained in the required tolerance for final installation. Thickness and spark testing was also completed to ensure no holidays were present and to guarantee the quality of the coating work completed.

Finally the externals of the pump casing was coated with Plasmert ZF a surface tolerant coating and a top coat of Corrothane AP1. With complete corrosion protection the pump could be expected to benefit from an extended service life carrying an aggressive alkali solution.



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1: On arrival. 2: Post abrasive blasting. 3: AR4 protective coating on all internal surfaces. 4: Close up of coated vanes of the impeller.

Industry	Industrial chemicals processing
Environment	Sodium Hypochlorite
Plant Coated	Casing, impeller and cover
Preparation	Sa2½, profile 50µm
Coating	Corroglass AR4, ZF, AP1
Application	Hand
DFT	1000-1200µm
QA	Thickness & spark testing

