

# Case Study - Anodising for a brighter future

*“The short term capital costs will be more than offset by long term efficiency and reduced process costs.”*

*Michael Perrott, HR Manager*

## A Case Study from Ampep PLC

*Improving processes makes better use of location*

### Summary

Ampep was established in 1963, and has been a subsidiary of Sarma, an SKF company, since 1988. The company specialises in the design and manufacture of high technology self-lubricating plain bearings for aerospace and industrial markets. This case study looks at how the company has reducing the environmental impact of its anodising plant by minimising usage of hexavalent chrome.

## Introduction

Ampep was established in 1963, and has been a subsidiary of Sarma, an SKF company, since 1988. The company specialises in the design and manufacture of high technology self-lubricating plain bearings for aerospace and industrial markets. Their mission statement states they want: -

*“To be recognised as the technological leader in the field of self-lubricating bearings, offering our customers unrivalled products, services and quality at competitive market prices”*

This case study shows how they commit to this mission statement by ensuring the price the customer pays is not at the cost of the environment.

## Background

Ampep aims for total quality and adheres to its own Total Quality Policy which means they: -

- Market only products and services that will ensure customer satisfaction
- Operate reliable processes capable of fulfilling approved specifications
- Maintain a programme of continuous improvement

Key to this is the company’s accreditation to ISO14001 gained after focusing on improving every single aspect of the business. No stone was left unturned and opportunities for improvement were found from the methods and effects of manufacturing high-performance components down to the disposal of factory waste. Implementing these improvements into the way the business is run and products made has brought about cost savings. More efficient energy use, for example, is one of several factors that help to reduce the cost of running the company.”



## Continuous Process Improvement

By always looking very closely at their processes and activities opportunities can be identified and action plans drawn up. This constant reappraisal has left the company better able to meet its customers' needs and ahead of the competition. Recently they have installed new process plant to reduce the impacts of its anodising process. The existing chrome/sulphuric anodising plant was replaced with more modern plant. This uses a sulphuric acid anodising process offering more surface finish options for customers. This process is now used wherever possible and where customer specifications allow. The change of process reduces considerably the use of hexavalent chrome, liquid waste containing chrome, and rinse waters contain less chrome. An effluent treatment plant (due to be installed in 2003) will reduce the quantities of contaminated waste water going to the foul sewer.

## Other benefits

Ampep have been able to reduce the environmental aspects of other parts of their processes. They have made big reductions in their use of Trichloroethylene and use water based solvents and degreasers where practical. They are moving to a wet process in front of their phosphating line. This action will have the added benefit of reducing emissions to the atmosphere, providing a better work environment.

Ampep, through its continuous improvement activities, are realising cost savings and developing best practice. This importantly helps to maintain their image as a good neighbour.

## Future Improvements/ Initiatives

The process improvement project carried out by Ampep PLC has resulted in a major reduction of environmental impact. The following details some of the company's future improvement activities: -

- [Continue to develop paper recycling across the site](#)
- [Identify further opportunities to improve processes and minimise usage of volatile solvents](#)
- [Ensure continued certification to ISO14001](#)

## Conclusion

By gaining ISO14001 ahead of many of its competitors Ampep have shown their commitment to the environment. This project demonstrates continuous improvement in practice. The decision to replace the anodising plant has attracted short term high capital costs. The benefit to the business is it improves the product for the customer and reduces environmental impact. The investment will be recovered through reduced process costs. The employees gain from being able to continue working for a local employer.

## Contact information and other detail

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**Type of Business:** Manufacturing  
and Engineering  
**No of employees:** 140  
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