

Challenges

A major producer of automotive, hot-dipped galvanized steel, was looking for a better performance from their cleaning section. The producer was looking for improvement in:

- Strip cleanliness
- Foaming characteristics
- Waste water amounts
- Chemical consumption
- Soil drag-out

Providing Solutions

Quaker introduced the QUAKERCLEAN® IQ-SYSTEM with sodium hydroxide. A system based on high quality surfactants and an excellent defoamer technology. The introduction of the QUAKERCLEAN® IQ-SYSTEM resulted in:

Total Benefits Equal To 2 Times The Chemical Costs

Total Chemical Cost for QUAKERCLEAN® IQ-System	€110,500
Operational Savings:	
Applied cost (Euro/tonne) lowered 51% from previous product	€104,000
Reduced maintenance costs	€120,000
Total Annual Benefit	€224,000

The applied chemical cost was reduced by:

- Introducing a foam detection system
- Better drag-out of soiling over magnetic separation
- Elimination of bath draining

The cost reduction on maintenance was achieved by:

- Less maintenance of the ultra filtration system
- No “over foaming” of the solution
- Less manual cleaning of the equipment

Other benefits that came with the introduction of the QUAKERCLEAN® IQ-SYSTEM:

- Better strip cleanliness
- Higher line speeds possible
- Less waste water (no draining)

Customer Reference

- ArcelorMittal
- TKS-Germany

OEM Reference

- Andritz
- Beguin

Product Description

The QUAKERCLEAN® IQ-SYSTEM is based on high quality surfactants and excellent defoamer technology. When used with a sodium hydroxide base, this combination delivers excellent cleanliness of steel strip and very effective foam control. The products in this series can be used for all kinds of metal strip cleaning operations.

Process & Equipment

Operation:	Cleaning of cold rolled strip prior to hot dip galvanizing. Dip, Brush, Electrolytic Cleaning
Capacity:	650,000 metric tons per year

Product & Process Expertise

Cleaning chemicals represent a very minor part of the costs in a steel finishing process, typically less than 1%. This case illustrates the importance of the correct selection of the cleaning system. The impact of a correct selection is usually the multiple of the fluid costs making the price of a cleaner virtually irrelevant. That is why Quaker focuses on developing fluids with the highest performance without compromise, fluids that sharpen your competitive edge.