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CASE STUDY

Minerals & Mining Applications

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# Increasing the production life of sulphuric acid production units from 16 to 24 months

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AMAFILTER® PROVIDED THE CUSTOMER WITH A TWO VESSEL SKID MOUNTED CERAMIC CARTRIDGE FILTER SYSTEM. INSTALLATION OF THE SYSTEM REDUCED THE SOLID CONTENT IN THE LIQUID SULPHUR TO MAX.10 PPM, SIGNIFICANTLY INCREASING THE PRODUCTION LIFE OF THE SULPHURIC ACID PRODUCTION UNITS FROM 16 TO 24 MONTHS, BEFORE ANY MAINTENANCE WAS REQUIRED. THIS ALSO RESULTED IN A MORE PROFITABLE OPERATION.



**Filtration Group®**  
Safer | Healthier | More Productive



**amafilter®**  
Filtration Group®



Customer:  
**SULPHUR PLANT**  
Industry:  
**MINERALS & MINING**  
Application:  
**SULPHUR**



## THE CHALLENGE

Amafilter® were made aware that one of their long-standing customers wanted to increase the service life of their sulphuric acid production units from 16 to 24 months by reducing the solid content in their liquid sulphur to max. 10ppm.

This was a challenging request and was compounded by amafilter® being faced with fierce competition from low-cost bidding suppliers.

## THE SOLUTION

Amafilter® approached the client with their automated two-vessel skid-mounted ceramic cartridge filter system, which could be tailored to the customer's unique specifications, most notably, a polishing filter at the inlet of the sulphuric acid production unit.

The system would also be delivered in "Plug & Play mode", making the unit not only easy to install and connect, but would also provide a quick return on investment due to the system initiating production immediately upon installation.

## THE RESULT

Amafilter® won the contract due to the technical superiority of the product, with competitors offering the client a standard 'vessel-only' solution with a more extensive product ordering to start-up time.

The typical timescale for a project of this scale would be 24-months. Amafilter® reduced the schedule of delivery of the unit by almost 12 months due to the system's Plug & Play mode.

The polishing filter technology reduced the solid content in the liquid sulphur before going in the storage tanks to less max.10ppm, improving production time for the client and increasing the production life of the sulphuric acid production units from 16-months to 24-months.

Furthermore, as the unit did not require any maintenance until after a 24 months period, this resulted in a safer operation due to less manual handling as well as increased profitability due to reduced maintenance.

## OUR PRODUCT

The Amafilter® cartridge filter is a closed system suited for safety/polishing filtration of molten sulphur applications. This system is also available as an advanced modularized pre-assembled mobile filtration system combined with the Amafilter® horizontal pressure leaf filter system which can be tailored to a customer's specific requirements.

### The efficiency of the ceramic cartridge filter is due to the inclusion of:

- Fully automated, making it safer, limited maintenance and lower operational costs
- A closed filtration system which ensures the safety of use
- Self cleaning cartridge system which allow a quick production restart
- Shorter regeneration time between filtration cycles, lowering operating costs due to longer filtration periods without disruption
- No rotating parts, keeping maintenance to a minimum
- Easy exchangeable cartridge supporting plate allow a quick cartridge replacement

