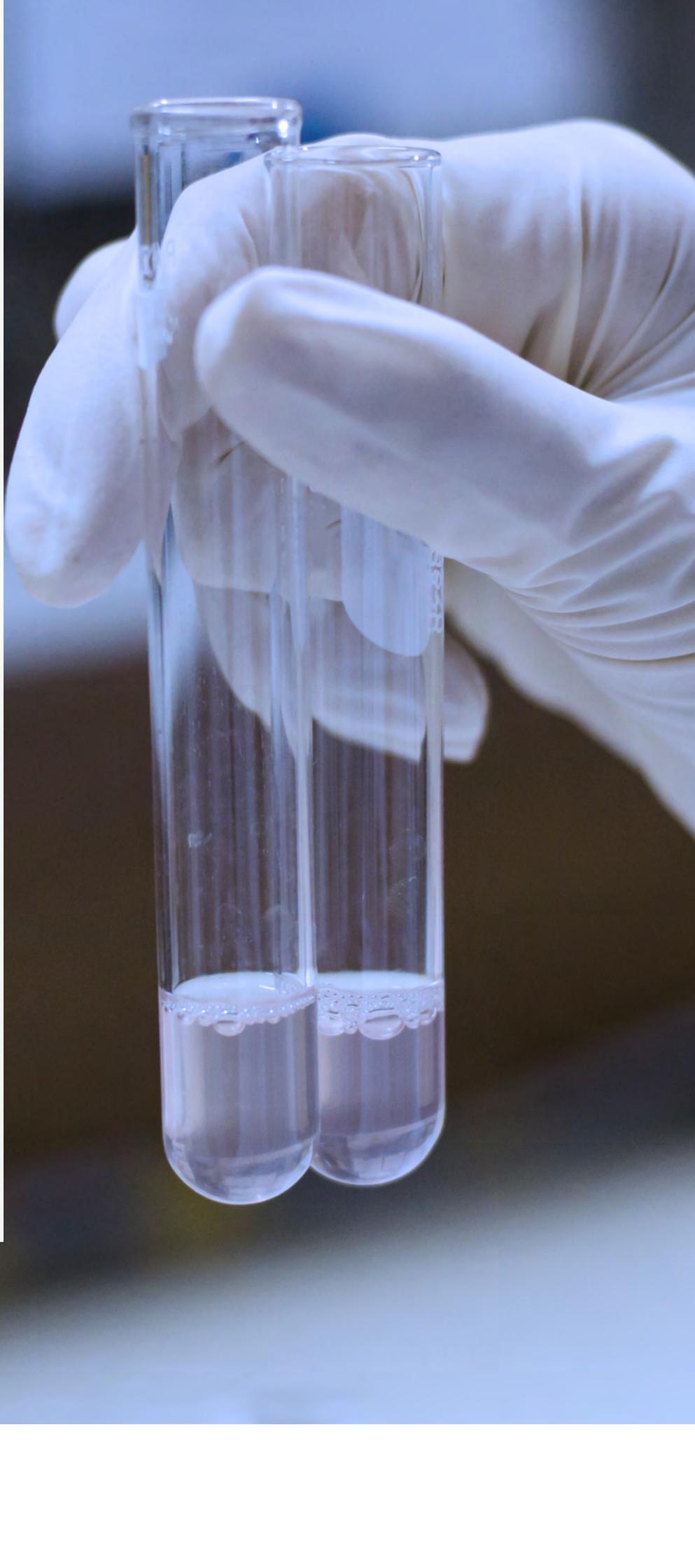

CASE STUDY

Chemical Applications

Amafilter[®] improve the filtration quality and reduce maintenance costs with the Cricketfilter[®] System

THE AMAFILTER[®] TEAM WORKED CLOSELY WITH CERDIA TO FIND A FILTRATION SOLUTION THAT WOULD DELIVER CERDIA'S DESIRED FILTRATION LEVELS AND PROCESS AUTOMATION EFFICIENCIES, RESULTING IN A MORE EFFICIENT OPERATION.



Chemical Applications

THE CHALLENGE

Amafilter® had supplied Cerdia Produktions GmbH with liquid filter cartridges and liquid filter bags for over 30 years but until recently had never supplied filtration systems.

In view of the existing close relationship, Cerdia Produktions GmbH approached the Amafilter® team to discuss their process requirements. Cerdia were not achieving the desired filtration levels and process automation efficiencies they required with their current system. To maintain the existing process filtration effectiveness, the maintenance team at Cerdia Produktions GmbH had been changing their process filter cloths up to three times a week, incurring high operational expenses through labour and replacement cloths.

THE SOLUTION

Amafilter®'s specialists worked closely with the expert team in Cerdia to understand the problems they were encountering with their existing filter system and identified that the existing system did not have a backwash feature.

Having investigated the issues, the Amafilter® team advised Cerdia that they recommended a Cricketfilter® system with a fully automated backwash. To establish confidence in the Cricketfilter® system, the Amafilter® sales and engineering team worked closely with the customer to carry out an on-site pilot test. A 1 m² surface area Cricketfilter® pilot unit was installed to demonstrate the effectiveness of the Cricketfilter® backflush system and how suitable it was for their application. The pilot test helped Cerdia and Amafilter® determine with confidence the correct filter size required to meet the requirements in flow and quality of the filtrate without filter aid.



THE RESULT

After four weeks of pilot testing, the Cricketfilter® system proved to be very effective showing no signs of blockage. This challenging application, with gel like particulates at low solid content and no additional filter aid, suited the unique filter elements as utilised in the Cricketfilter® system.

Following successful site trials, the Amafilter® team designed and manufactured a Cricketfilter® 2000W system for Cerdia Produktions GmbH. Once the Cricketfilter® 2000W system was installed, it proved to be ideal for this application as it delivered the following benefits:

- the filter cloths only required to be replaced once every 6 months
- filter cloths expenditure was substantially reduced
- the Cricketfilter® technology with auto sequence backwash, substantially reduced maintenance intervention.

Furthermore, traditional candle / pulse tube filters have cylindrical elements which do not maximise the space inside the filter as efficiently as the Cricketfilter® flat element shape. The shape of the element makes it possible to install up to 40% more filtration area in a tank than the traditional cylindrical elements. Due to the configuration of the Cricketfilter® elements, we achieved the filtration surface area with a smaller vessel compared to others proposed to Cerdia during their selection process. The reduced investment costs enabled Cerdia to upgrade their system with a more robust and reliable process filter.

Andreas Hummel, Process development expert in R&D, commented:

“Amafilter® experts worked closely with our team to deliver the best possible results in terms of footprint, filtration quality and reduction in maintenance costs. We are very pleased with the outcome of this challenging project and achieved greater benefits than we originally expected.”

Customer:
CERDIA PRODUKTIONS GMBH
Industry:
CHEMICAL
Application:
FILTRATION OF ACETIC ACID
Product:
CRICKETFILTER® 2000W

OUR PRODUCT

The Cricketfilter® features and benefits:

- Up to 40% larger filtration area than traditional pulse tube filter systems
- Large filtration area within a small footprint
- Hermetically closed system and can be fully automated
- Suitable for direct cloth filtration or precoat/body-aid filtration
- High filtrate quality
- The Cricketfilter® is simple to clean. It uses air or gas pulses for cleaning the elements section by section, without requiring a vibrator
- Low maintenance
- Suitable for a wide range of applications
- The Cricketfilter® can be used with filter cloths of various pore sizes and materials. This reduces and at times eliminates the amount of extrapre-coating needed, making filtration more economical.
- Cricketfilter® automation. It is possible to automate, therefore ensuring low necessary maintenance

