

News Letter 2021-1

Oil separation

Filtration

Magnetic separation

Subjects:

- Expertise Fact Sheet
- Q-Filter® Active Vacuum Filter further improved
- 30-times reduction of oil content
- Cost saving upgrade automotive paint line.
- 3-times extension service life degreasing bath

'What can we do for you?', summarised in an Expertise Fact Sheet

In the discussions with our relations we often learn about their problems. Whether they are end users, system integrators or OEMs; it concerns problems of high cost, lack of support, competitiveness, selection of the right technical solutions or guarantees. Often these are problems for which we have the solution. Based on our expertise, we know that the solution not only lays in equipment, but also in sharing experience and knowledge, information, support and giving guarantees.

That is why we have placed ourselves in the position of our relations and how they experience their problems. That has resulted in a summary we call the Expertise Fact Sheet. This document lists all problems our customers are dealing with and shows the solutions we offer. These solutions are substantiated



with practical examples and references, and concern cost savings, support, improvement of your competitiveness, the right technical solution and a

performance guarantee. Are you interested in what we have to offer? Would you like individual advice? Please contact us.

Innovation: Q-Filter® Active Vacuum Filtration System further improved

Innovation is an integral part of our strategy. We are always looking to improve everything we do. In 2020, this resulted in a new version of our Q-Filter® system in which the most radical improvement was the new control system. This is now based on the Siemens S7-1200 series with HMI panel.

And there is another important improvement. The Q-Filter® system is basically a stand-alone system, but in larger production environments it is sometimes preferred that the control

of all subsystems is integrated in the central control system. To meet our customers' requirements, it is now possible to deliver the Q-Filter® system without a control system but with the complete control software. This way, a Q-Filter® system can easily be integrated into the plant's central control system. For the integration with the central control system, we provide all necessary information and support. The only condition is that the central control system is based on Siemens TIA Portal.



Q-Filter® active vacuum filter, type QF150 for filtration down to 5 µm.

Mechanical Engineering: CUBIC Modular Systems, 30 times reduction of oil content



Suparator® oil separator system type 86/240

The Danish company CUBIC is a manufacturer of enclosures for modular main- and distribution switchboard solutions. During the production process, the enclosures are spray painted in an automatic paint line. To improve the quality of the paint layer, it was decided to optimize the pre-treatment by means of a Suparator® oil separation system. The requirement

was to reduce the excess oil content from 184mg/l to 20mg/l. The result that was finally achieved was 6mg/l.

This was also realized thanks to the fact that CUBIC was open to our advice and recommendations for a proper integration. The combination of our expertise and the Suparator® system has given this great result.

Automotive: Skoda, cost saving upgrade of an existing paint line



Within the automotive industry, existing production lines are increasingly being upgraded. When we zoom in on the paint shop, we see that the pre-treatment often uses outdated techniques, such as coalescence oil separators, flatbed filters and overflow to drain.

The Skoda production site in the Czech Republic has undergone a modernization in 2020, in which the medium in the degreasing stages is

now treated with Suparator® dynamic oil separation systems and Q-Filter® active vacuum filtration systems for the filtration of particles down to 5µm. This has led to an improved process quality and to a serious extension of the service life of multiple baths. As a result of this, significant savings were realised in the area of waste disposal cost, water and chemical usage and energy consumption.

Mechanical Engineering: Power-Packer, a 3-fold extension of the service life of a degreasing bath

Power-Packer is a manufacturer of innovative drive systems for convertible roof tops and truck cab-tilt systems for the automotive industry, and also for hydraulic applications for other markets such as marine and special vehicles and equipment.

To improve the pre-treatment zone of their paint line (an overhead conveyor tunnel washer) a Suparator® oil separation system model 86 was installed. This is one of our smaller systems which can easily maintain the 2,5m³ bath and keeps it free from oil. To optimize the result, some minor modifications were made to the tank

according to our recommendations. These modifications as well as the integration of our equipment into the process were supported by our technicians.

Instead of having to change the bath every 2 weeks, this is now done every 6-7 weeks. Moreover, this is not because of the oil the bath needs to be changed, but because of the chemistry. A 3 to 4-fold extension of the service life of bath 1 has been realized.

Power-Packer says :
"The Suparator® system has exceeded our expectations".



Esseleent Solutions specializes in solutions to separate both oil and dirt from aqueous media.

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