

Automation Upgrade for Pressure Filters and Filter Presses

Secure operations with new technologies
enabling access to the digital era

BENEFITS

- ✓ Improved filter safety conditions
- ✓ Replacement of old legacy systems
- ✓ Access to Industry 4.0 standards to support your digital transformation journey
- ✓ Get actionable insights from filter performance monitoring

Roxia Filter Automation Upgrade

A filter automation upgrade is an ideal solution to secure operations with new technologies and enable the access to the digital era. It improves the knowledge of filter conditions and assures safety – all with relatively low costs. In addition to automation updates, we also offer mechanical modernizations and high-quality spare parts for filters.

Roxia filter automation upgrade is ideal if you want to:

- × Enable and improve filter safety.
- × Upgrade legacy system and enable further development.
- × Restore the automation of your filter to an “as good as new condition”.
- × Replace only the necessary system components such as control cabinets, PLC and/or Field Instruments
- × Know the condition of the filter and produce actionable insights on how to increase filter’s efficiency and productivity.
- × Bring your equipment to Industry 4.0 standards and support your digital transformation initiatives.



Upgraded equipment ready to be installed at plant

Automation Upgrade Principles

1. Ensure and extend the lifecycle of the asset

The life cycle of an asset can be shortened or extended by the type of operational and maintenance decisions made in the organization. The benefits of an automation modernization are seen almost immediately in terms of increased equipment reliability.

Old or legacy automation equipment, according to FMEA, has a high criticality factor. Now is always the best moment to bring this criticality close to zero by modernizing the system of your filter.

2. Latest technology first

We have adopted as a core principle the “latest technology first approach”. This means that our team will always seek to provide you from the first moment with the latest existing technology for your applications.

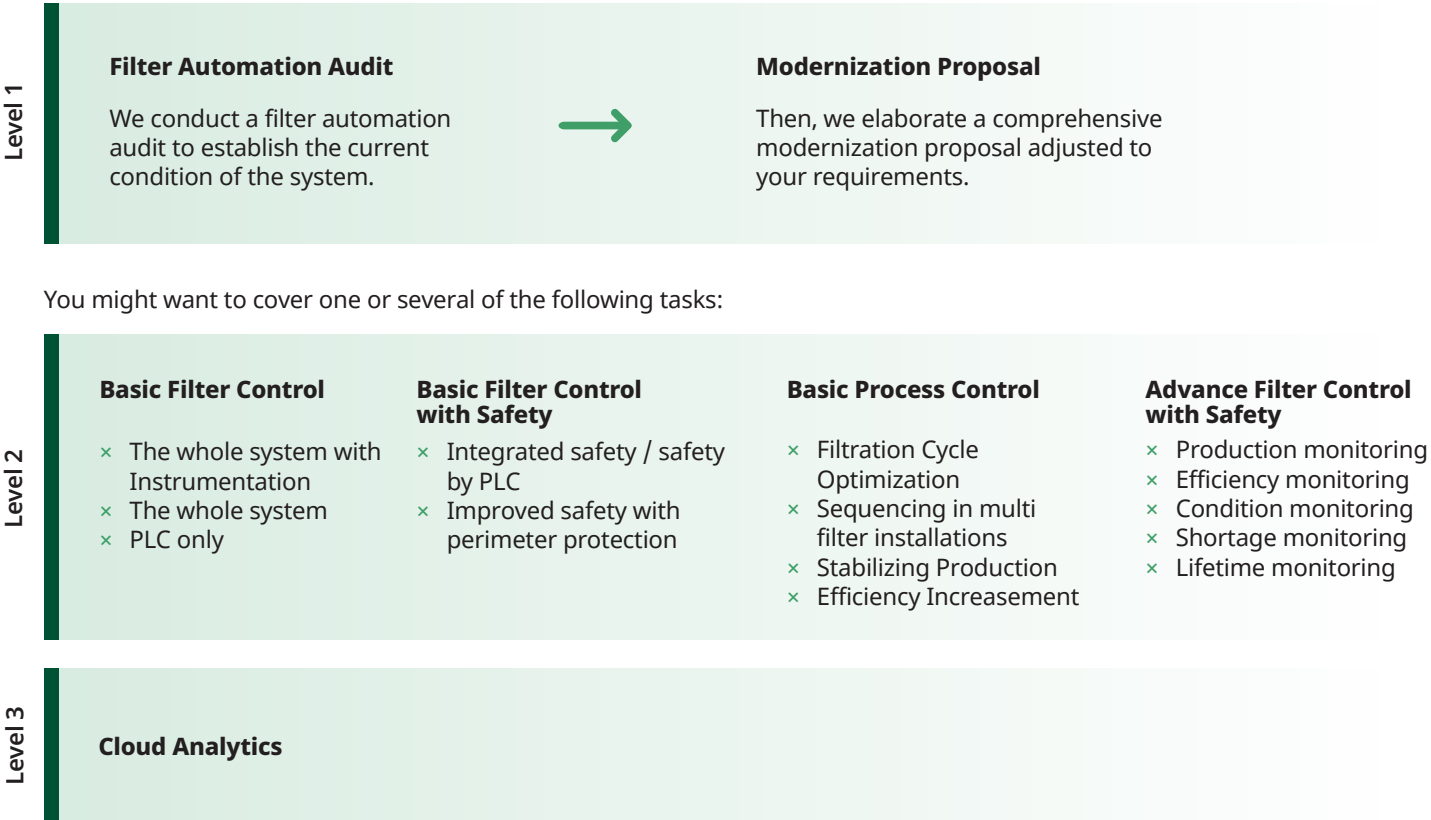
Technology brings competitive advantages, and we are ready to deliver solutions associated with the technological progress we are currently experiencing.

3. Filter optimization: leverage reliable data

Our system Malibu is your door to analytics in the cloud. Collecting massive amounts of data has no benefits unless insights are turned into actionable items.

Our team of filter experts together with our data analytics team will work with you to unveil those hidden patterns in the filter operation, key to a more efficient and productive process.

We offer the following service levels



Our Success Stories



- Customer:**
Boliden Kokkola, Finland
Europe’s second biggest zinc producer
- Equipment:**
Two Novatek filter presses
- Modernization Level 1-2:**
- × Complete automation system hardware modernization.
 - × New HMI with user friendly operator instructions.
 - × Operator protection installed and mechanical maintenance to the whole filter



Customer:

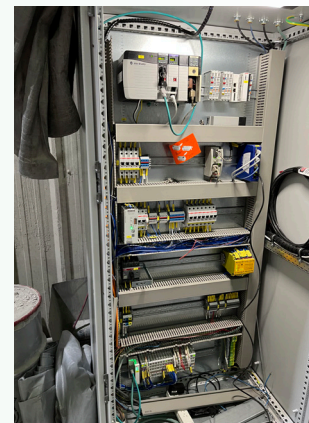
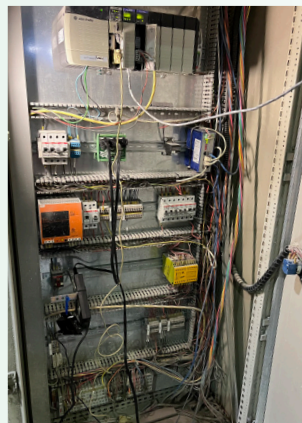
Pogo Mine, Alaska, USA
Gold Mine situated in the Tintina Gold Province

Equipment:

Three PF60 pressure filters

Modernization Level 1-3:

- × Complete automation system hardware modernization, including cabinets, firmware, and PLC.
- × HMI migration one-to-one.



Customer:

Terraframe, Finland

Equipment:

Three PF12 pressure filters

Modernization Level 1&3:

- × Installation of Malibu to existing control system and process optimization.

Insights Gained:

Wrong settings in the filter recipe and a manual valve placed in the wrong position leads to high water and air consumption. With the help of those insights, actions were taken and the consumption decreased.

Membrane damage was revealed by pressing water leakage. This can cause massive issues if not spotted on time – such as cake moisture problems, clogged grids and even plate bending

Major issues like a clogged slurry screen in the filter feed line was detected by comparing fill stage values to two other filters. The usage of analyzed data can help to prevent major failures.

Excellent reporting tools and automated daily, weekly and monthly reports about production, productivity, utilization rate and alarm handling are generated.

Customer:

Gold Mine in Turkey
Mining and mineral processing industry

Equipment:

One PF60 pressure filter

Modernization Level 1&3:

- × Installation of Malibu to existing control system and process optimization.



Malibu view with example data



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