

Roxia Ceramic Disc Filter™

Filtration Performance - powered by people

STUDY & TESTING

PROCESS DESIGN

DELIVERY PROJECT

OPERATION SUPPORT
& SERVICES

MODERNISATION



Expertise, Efficiency & Innovation in Filtration

Roxia has more than 40 years of world-leading experience in solid-liquid separation. Our professional and experienced filtration team combines extensive practical knowledge from the field with a commitment to understanding and addressing our customers' unique needs. We offer a complete package of dewatering solutions and services, from a detailed analysis of the process for project feasibility studies to complete delivery and dedicated support throughout the entire equipment life cycle.

With local supplier channels, we have developed top-quality products and ensured competitive delivery times, even for large assemblies. This operational model allows us to meet stricter quality requirements, helping our customers achieve greater cost-effectiveness and sustainability in their operations.

Roxia Ceramic Disc Filter™ - Low Investment, Clear Filtrate, Dry Cake

Roxia Ceramic Disc™ (CD) Filter is a continuous vacuum filter designed for demanding solid-liquid separation processes. It delivers excellent filtration results with low investment and operating costs. Compared to conventional vacuum filters, Roxia CD Filter consumes up to 90% less energy compared to (traditional) vacuum disc filters while producing a clear filtrate and dry cake.

The CD Filter combines high capacity, reliability, and process efficiency. Its continuous operation principle simplifies automation and ensures consistent performance even under varying process conditions. Roxia CD Filter is a cost-effective solution for concentrator and tailings processes across multiple industries.

To further enhance performance and extend the lifetime of ceramic filter elements, Roxia offers Roxia Regen™, an advanced acid cleaning process. This innovative regeneration method maximises the chemical effect during the wash cycle, significantly restoring the element's original performance while reducing chemical consumption.



Roxia Ceramic Disc Filter™

Roxia Malibu™ Online Process Monitoring, Maintenance and Analysis Tool

Roxia connects industrial filters to the Roxia Malibu™ online portal and enables remote monitoring of performance. With Malibu, operators management can analyse and optimize filtration process, and production volume and detect failures before they even occur. All that can be done from anywhere with any computer, smart phone or other handheld device with internet connection.

CD Models with Main Dimensions

Filter name	Filtration area m ²	Disc area m ²	Dimensions m (L*W*H)
Roxia CD 3 15	15	3	3,9*3,3*2,7
Roxia CD 3 30	30	3	5,5*3,3*2,7
Roxia CD 3 45	45	3	7,3*3,3*2,7
Roxia CD 6 60	60	6	6,2*3,9*3,3
Roxia CD 6 90	90	6	6,9*3,9*3,3
Roxia CD 12 120	120	12	9,0*5,3*4,7
Roxia CD 12 144	144	12	9,5*5,3*4,7

Other sizes are available upon request. Wetted parts available in various materials.

Benefits of Roxia CD Filter™

High filtration capacity
Up to 2000 kg DS/m²/h

Low energy consumption
Up to 90% savings compared to traditional vacuum filters

Clear filtrate & dry cake
Filtrate solids typically < 20 mg/l

Continuous operation
Stable process flow and visible operation

Reliable performance
High availability and low maintenance

Low investment costs
Efficient design with long-term value

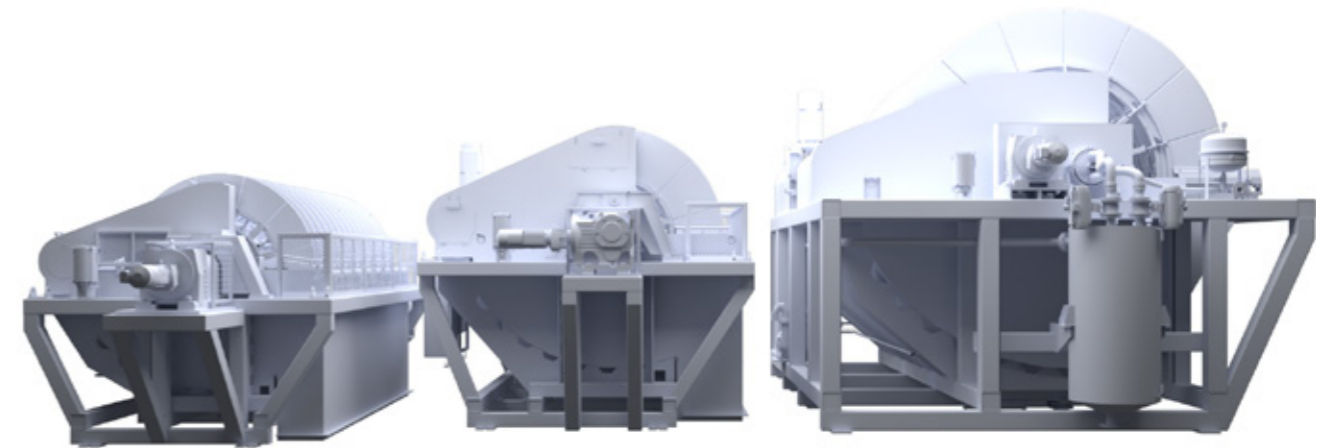
Complete lifetime support
Roxia experts ensure optimal performance

Roxia Regen advanced acid cleaning
improved plate cleaning, resulting in better performance and longer lifetime

Roxia automation
Intuitive visual control pages for easy operation and monitoring

Proven technology
Roxia ceramic disc elements are the best performing at multiple customers

Ultrasonic cleaning
High-energy ultrasonic elements and transmitters for enhanced cleaning efficiency



Roxia Ceramic Disc Filters™ 45, 60 and 144

Roxia Spare Parts and Modernizations

Roxia provides high-quality, latest-design spares for all ceramic disc-type filters. We support filter availability and reliability through regular inspections, predictive maintenance, proactive monitoring, timely spare part supplies through efficient supply chains, and refurbishment. Our job is to ensure you the most optimal and trouble-free operations throughout the entire operational life of the filter.

Ceramic Disc Elements

Best production capacity among ceramic disc elements.

Type: Membrane plate
Material: Aluminium Oxide
Sizes: 3, 5, 6 and 12 m² area per one filter disc

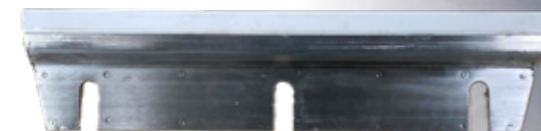
- × Low moisture
- × Clear filtrate
- × Long lifetime
- × Wide porosity range for different applications
- × OEM quality with competitive pricing
- × Fast delivery from local stock
- × Compatible with a wide range of ceramic filter brands



Scrapers

Featuring a wear-resistant ceramic scraper element

- × Material: AISI 316 frame, aluminium oxide blade,
- × Available for filters with 3m², 5 m², 6m² and 12m² discs.



Backwash piping

The piping layout, components, and sizing are optimized for each application and filter size to ensure efficient and reliable backwash performance. The system can be supplied as a standalone skid or integrated into existing installations.

- × Easy accessibility for maintenance
- × Safe acid mixing
- × Dual bag filters for uninterrupted production even during filter change
- × Pressure, flow and temperature monitoring with alarms



Automation upgrades

Old and outdated automation to be replaced with latest automation technology. We offer:

- × Instrumentation
- × Cabling
- × Control cabinets
- × User interface
- × Filter control panel
- × Disc element sequence upgrades



Ultrasonic cleaners

High-performance ultrasonic cleaning system for ceramic disc filter elements. No adjustments needed when replacing parts. Easy to service and ensures consistently strong cleaning results.

- × Improved cleaning results
- × Long lifetime and trouble-free operation
- × High-quality transducer element bonding with 10-year warranty
- × Easy function check for operators
- × Different models and customizations available

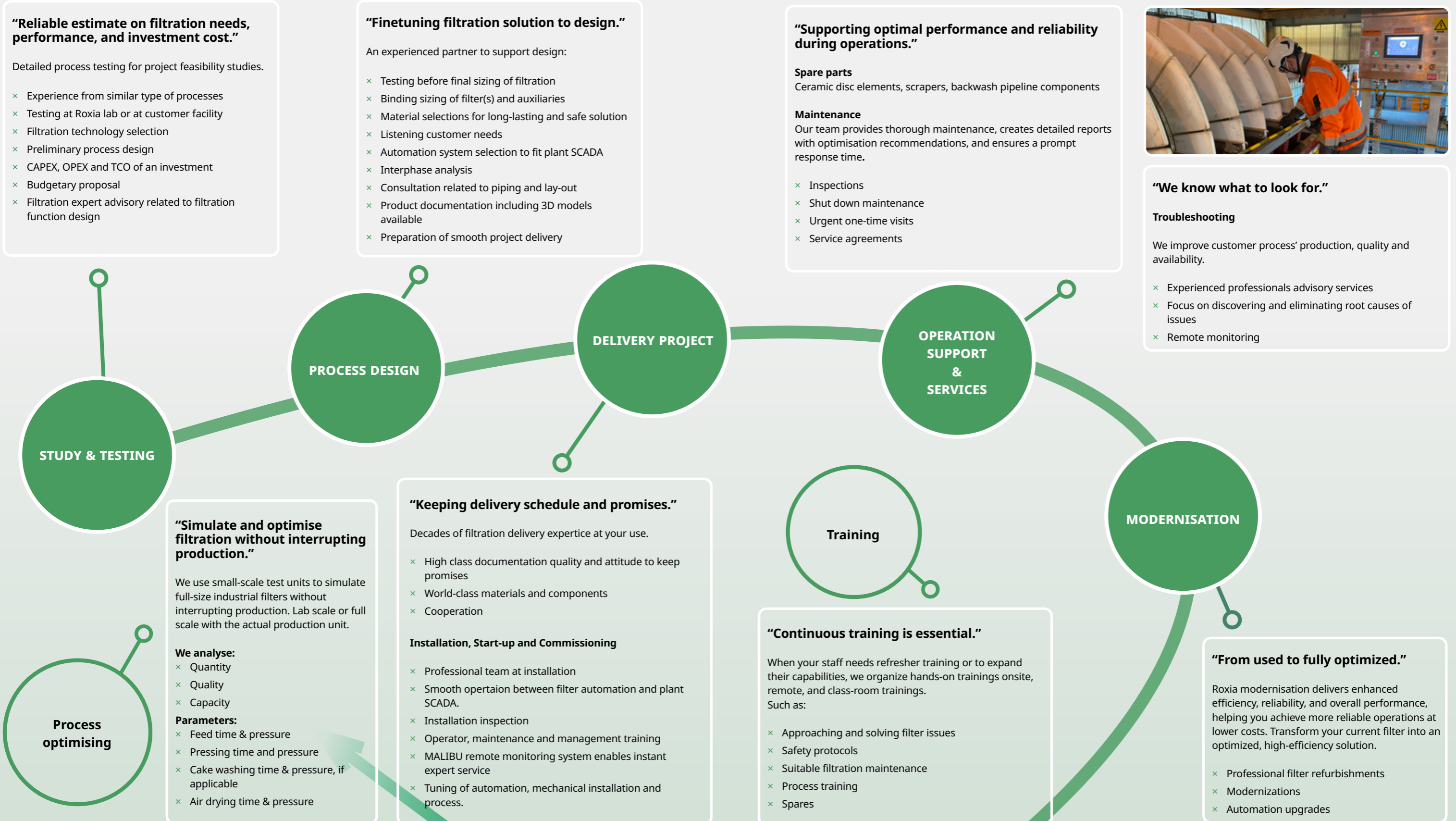


Acid dosing station

Designed to ensure safe and uninterrupted acid handling.

- × Loose item design
- × Buffer tank enables continuous acid supply for safe IBC container change
- × Easy accessibility for maintenance
- × Safety pool preventing hazardous chemical spills

Filtration Life Cycle Support



About Us

Roxia is a Finnish family-owned OEM company focusing on solid-liquid separation. With decades of world-leading experience and expertise from the field, we offer the highest-quality filter solutions, and services. Roxia filter equipment and parts are built on the latest innovations, ensuring our customers receive the most advanced solutions in the industry.

We provide a complete package, from detailed process analysis for project feasibility studies to comprehensive delivery and service throughout the entire equipment lifecycle.

Our life-cycle approach improves the availability and reliability of filters. This includes regular inspections, predictive maintenance, proactive monitoring and optimisation, timely spare part supplies, refurbishment, and eventually replacement of the plates, or the whole filter.

We have ability to adapt quickly to changing needs and to tailor our solutions to meet each client's specific requirements. Through our local supplier channels, we develop top-quality products and ensure competitive delivery times, even for large assemblies. We deliver what you need, when you need it. This operational model allows us to meet stricter quality requirements and improve overall cost-effectiveness and sustainable development solutions.

We offer our support from our headquarters in Finland, Chile, China, Germany, Kazakhstan, Peru, South Africa, and the United States, and globally through our partners.

Roxia holds ISO 9001:2015 Quality and ISO 14001:2015 Environment multisite certificates.



Image: Nuutinnokka, Roxia's guest house at Taipalsaari, Finland, on Lake Saimaa

Ceramic Disc Filter, Brochure - Roxia (EN) / 12-2025

