

Metso

Filtration services

Larox[®] FFP filter aftermarket offering

Leading dewatering
solutions for concentrates
and tailings



A large industrial machine, the Metso Larox FFP filter, is shown in a dark environment. The machine features a complex arrangement of pipes, valves, and structural supports. A prominent label on the side reads "Metso Larox FFP". The machine is designed for industrial filtration processes.

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Industry-leading expertise with a global network

Metso

KEY FACTS

17,000+
Employees

100+
Nationalities

~50
Countries we operate in

2,2%
Of sales goes to R&D

SERVICES FACTS

~3,000
Service experts

6
Own foundries & selected
partner foundries

~140
Service locations

3
Performance Centers

Metso

End to end solutions

The industry's most comprehensive aftermarket offering

SAFETY

Long-lasting and optimized parts and installation methods = fewer and shorter shutdowns

SCREENING

UP TO
100%
LESS WATER

CRUSHING

UP TO
30%
LESS ENERGY

HAULING

UP TO
9%
LESS FUEL/TON

FLOTATION

UP TO
20%
LESS ENERGY

GRINDING

UP TO
25%
LESS ENERGY

THICKENING

UP TO
91%
LESS PRODUCT LOSS

FILTRATION

UP TO
75%
LESS CARBON

Metso
PLUS

Metso

The pathway to a sustainable future

Helping our customers achieve their climate and environmental targets

Metso
PLUS

Demonstrably better than
the industry benchmark

Metso Plus criteria*

- Energy efficiency
- Carbon efficiency
- Optimized for using renewable energy
- Water efficiency
- Less pollution
- Reduced embedded carbon
- Electrified solutions

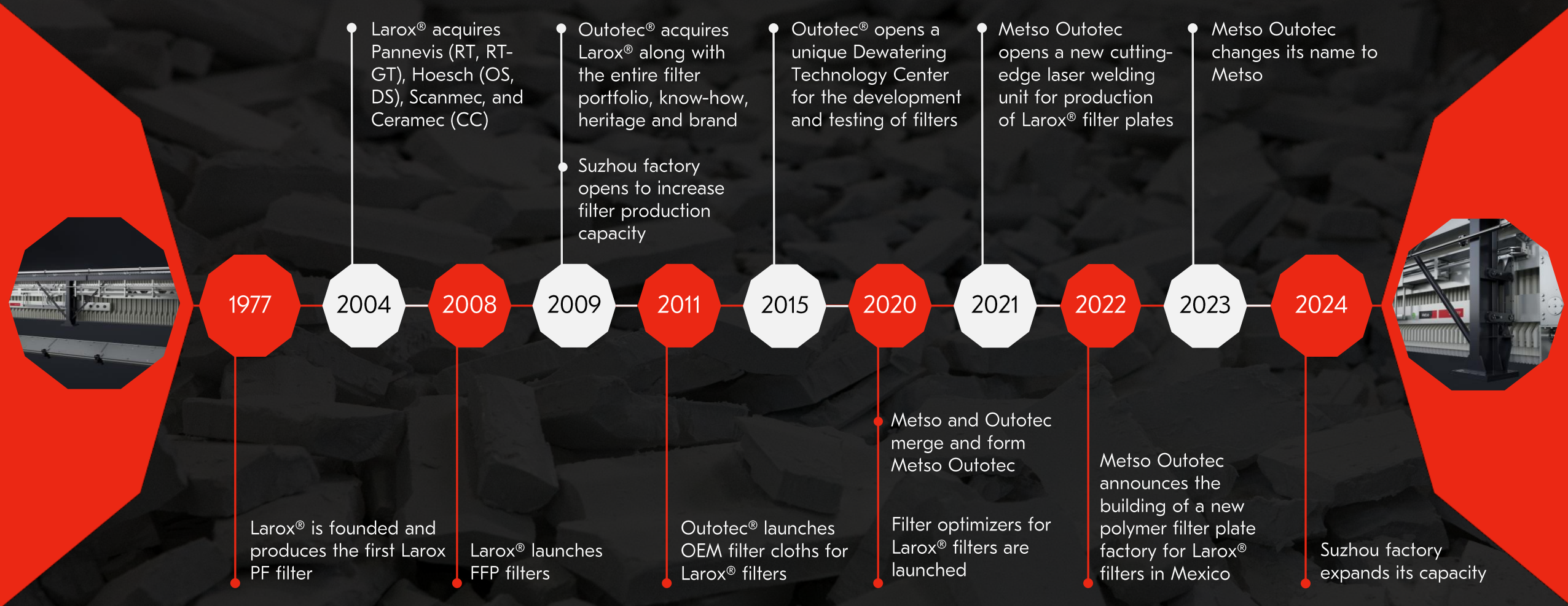
Over
140

Metso Plus
products and
services

100%
commitment to
sustainable
R&D

Metso

One must invest 10,000 hours to master a skill - they say. We have been mastering ours since 1977:



Metso's filtration service team's goals is to help you thrive.
Every day. No matter the conditions.

For we are

Your #1 service partner from pit to port

Our filtration experts ensure safety and quality is built into everything we do –
from R&D and engineering to parts and services.

We are committed to the long-term journey throughout the filtration equipment life cycle.
With our diverse and comprehensive aftermarket portfolio, we strengthen your operations through:



Optimizing filtration
performance



Increasing
availability



Decreasing
operational costs



Ensuring OEM
quality



Reducing
environmental impacts

Filters are critical to your operation

– what if they could perform even better?

Efficiency & performance

Filter availability & reliability

Cost-effective operations

Safe & sustainable operations

Flexibility & scalability



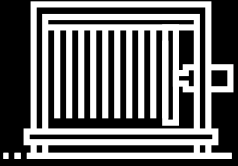
Optimized dewatering solution



Do any of these challenges look familiar?

- Variable feed conditions
- High operating costs
- Environmental and safety regulations
- Process efficiency
- End product quality
- Trained personnel
- Filter reliability and availability





Larox[®] FFP filter

Leading dewatering solutions for concentrates and tailings

The purpose of pressure filtration

Larox FFP filter



Producing a product suitable for shipment by removing the liquid from process slurries



Producing a product suitable for downstream processes or end users



Washing impurities



Water recycling



Metso Larox FFP filter product families



Prospecting, exploration,
development, extraction

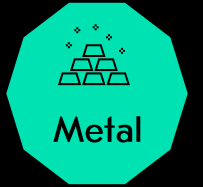
Comminution:
dry

Comminution:
wet

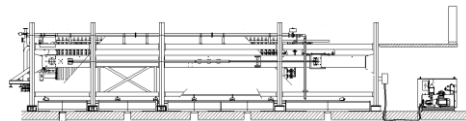
Separation:
beneficiation

Separation:
dewatering

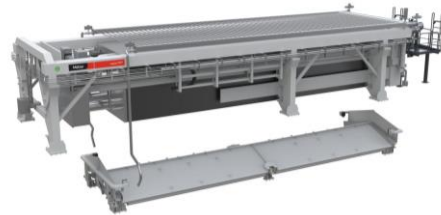
Metals refining



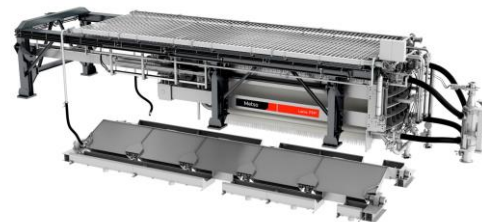
FFP1516



FFP2512



FFP3512



FFP3716



2006

2008

2020

2024

Larox FFP Filter

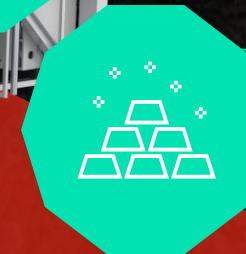
The mining tailings dewaterer



Solid-liquid separation



Suitable for fine particles



High volumes



Vertical filter plates:

- Double-sided filtration
- Large filtration area
- Fast opening operation

Utilizes over pressure:

- Slurry feed
- Membrane pressing:
 - Water FFP1516
 - Compressed air FFP2512, FFPS3510, FFP3512 & FFP3716
- Cake washing (optional)
- Air drying

Applications:

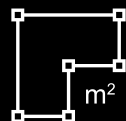
- Concentrates
- Bulk mining
- Tailings
- Industrial minerals
- Coal and metallurgical refineries
- Red mud

Key features

Larox FFP filter



3 – 120
chambers installed



108 – 1980m²
filtration area



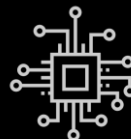
2 – 44m³
chamber volume



Up to 16 bars
operating pressure



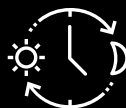
Variety of
chamber depth



Advanced
control system



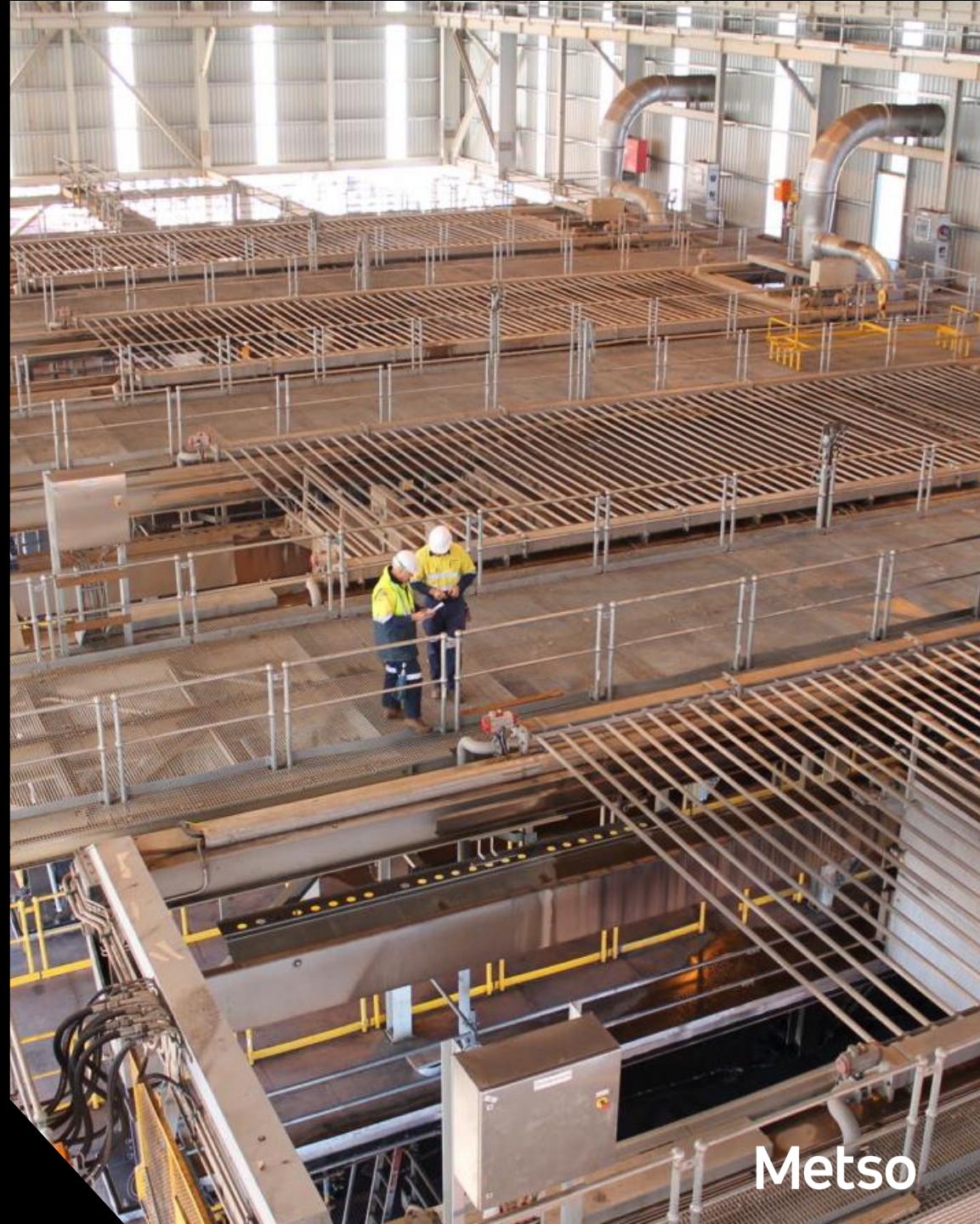
Short filtration cycles
(3 to 4.5 min)



High
availability



Minimum
downtime



A trusted and optimized dewatering solution for difficult tailings applications



Product automation

- Fully automatic operation with PLC control system
- Automatic adjustment for process changes
- Several recipes can be pre-defined for different slurry conditions
- Communication with DCS system



Consistent performance

- Flexible and reliable operation by high level automation
- High availability due to simplicity for daily operations duties
- Designed for easy maintenance access



Reduced production costs

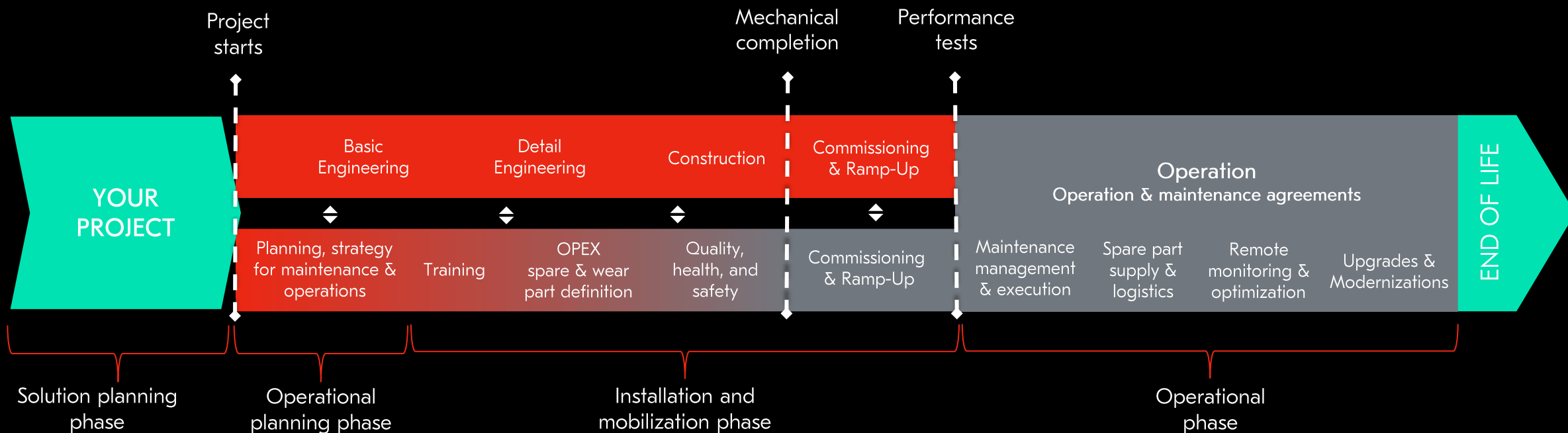
- Reliable operability with high performing equipment automation
- Consistent cake moisture in unsteady conditions
- Built in performance with minimum downtime



Data collection and exploitation

- Ready for remote access and advanced data collection conditions
- Early detection of issues with data analytics
- Faster problem solving using online connection

Seamless integration from investment to full life cycle



Benefits from seamless integration of capital and Services



Faster ramp-up



Consistent production



Reduced unplanned
downtime maximising
plant availability



Minimized operational
costs with optimized
spare part
consumption



Dedicated service
personnel from the
beginning of the
project

Take your filtration process to the next level



Our comprehensive filtration service portfolio is supported by deep technical knowledge, experienced people, and specialized tools to maximize profitability throughout the plant life cycle.



Spare & wear parts



Modernizations,
upgrades & retrofits



Maintenance,
shutdowns & repairs



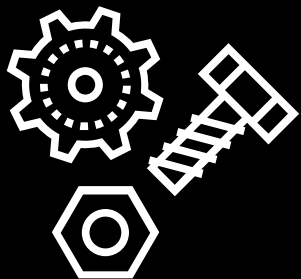
Process
optimization &
connected services



Training services



Life cycle services



Spare and wear parts

Engineered to perform

Metso

Larox FFP3512 main components

Cloth shaking system

Cloth flushing system

End piece piping and valves

Plate pack with filter cloths and connecting links

Skeleton (support frame)

Quick action cylinders

Head piece

Cross head and locking pins

Head piece piping and valves

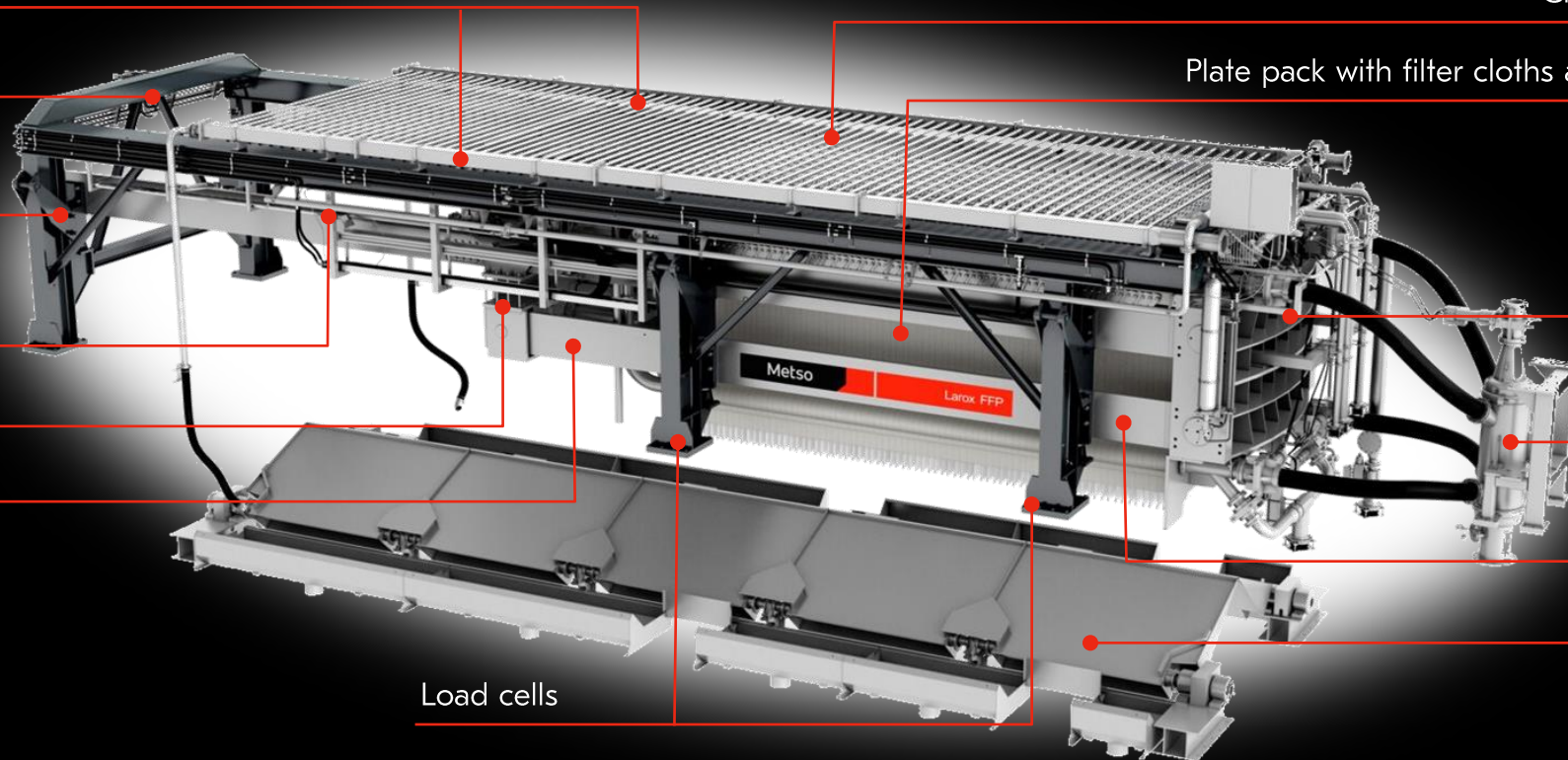
Sealing cylinders

Sidebars

Swivel plates

Load cells

- Hydraulic pipelines
- Pneumatics
- Hydraulic unit with several design solutions
- Hydraulic cylinders with several design solutions
- Control cabinet
- Auxiliaries (pumps, tanks, compressors, conveyors etc.)





Obtain optimum dewatering performance and low maintenance costs with our premium quality filter plates.

Discover a quick and cost-effective solution to maximize your current production performance without altering your existing footprint.

Our polypropylene filter plates are lightweight and offer excellent chemical resistance.

Each filter chamber employs a rubber membrane, a cutting-edge technology that prevents cracks in the filter cakes and compensates for shrinkage during compressed air drying.

This advanced membrane technology decreases compressed air consumption and significantly reduces total dewatering costs.

Metso

Filtration spare and wear parts

Filter plates

MORE INFO:



Benefits

- Decreased compressed air and energy consumption
- Optimum dewatering performance lowers dewatering and maintenance costs
- Improved safety with due to easier replacement procedures

Features

- Premium quality manufacturing and control
- Lightweight Polypropylene
- Chemical resistant
- Rubber membranes eliminate cracks and compensate for cake shrinkage
- Effective design for efficient liquid drainage



Metso

Filtration spare and wear parts

Membranes

MORE INFO:



Obtain optimum dewatering performance and low maintenance costs with our premium quality filter plates and membranes.

The pressure filters use rubber membrane in each filter chamber. A cutting-edge membrane technology eliminates cracks in the cakes and compensates for the shrinking in the cake during the compressed air drying.

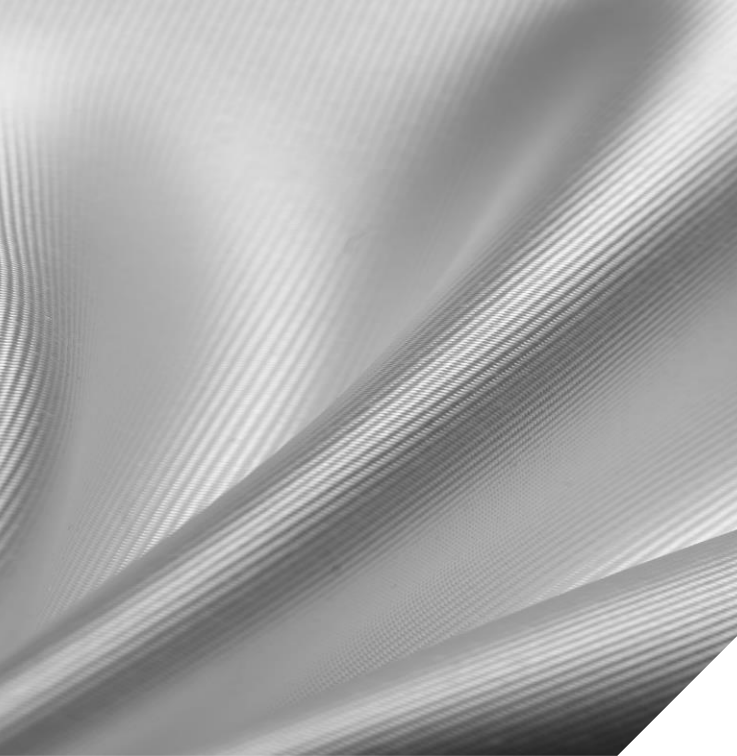
This advanced membrane technology decreases compressed air consumption and significantly reduces total dewatering costs.

Benefits

- Utilization of membranes decreases significantly cycle time in the filtration process
- Decreased dewatering costs
- Less energy consumption
- Lower compressed air consumption
- Safe materials to use and handle
- Off-the-shelf availability
- Best performance

Features

- Premium quality manufacturing and control
- Range of materials available to suite different process conditions
- Reach and ROHS regulations compliant



Metso

Filtration spare and wear parts

Larox FFP filter cloths

MORE INFO:



Based on decades of experience, Larox FFP cloths are designed to be simple to install, quick to change, and with best optimized process results.

Metso filter cloths are specifically tailored to perform optimally with Metso filters, ensuring optimized performance and process results for each application. By selecting our filter cloths, customers benefit from our comprehensive service network and committed customer support, gaining access to Metso's extensive product expertise and process support.

Our high-performance bespoke filter cloths, engineered with over 30 years of in-house experience, perfectly fit Metso filters and cater to individual customer needs.

The high quality of our filter cloths ensures longer lifespan and reliability, leading to increased uptime and reduced maintenance costs. As original OEM spare parts, Metso filter cloths and certified spare parts are crucial for maintenance success, ensuring high efficiency of processes.

Our continuous investment in R&D and quality control guarantees that our customers receive the best available spare parts, perfectly engineered to meet their needs with every delivery.

Benefits

- Easy change of cloths with lifting tool, 10cs at once
- Simple design means quick installation
- OEM quality
- Optimized performance and process results

Features

- 3512 and 3716, holeless single piece design without need of manual feed shoe installation
- Excellent cake release and resistance to blinding
- Variety of cloths to suite various applications



Filter services

Maximize performance



Metso

Professional services

Asset maintenance readiness (AMR)

MORE INFO:



Having a dependable reliability & maintenance strategy is critical, particularly in the first weeks and months you are ramping up and stabilizing your production.

AMR integrates the as-built CAPEX design, procurement, construction, and commissioning data with reliability engineering software, ReliaSoft, utilizing Reliability and Availability Modelling (RAM) and Reliability Centered Maintenance (RCM).

We provide a highly competent RCM facilitation, combined with product expertise, industry standards, local legal obligations and operating context to ensure a structured approach.

AMR can equally be applied to existing operations where assurance is required, where existing maintenance strategies are due to be reviewed or improved, even on non-Metso assets.

Partner with our team to achieve Automated Maintenance and Reliability (AMR) success by using Failure Modes and Effects Analysis (FMEA) as the foundation for developing a comprehensive maintenance strategy.

We incorporate expertise and feedback from our product engineers, field service experts, current contracts, and remote monitoring. Throughout the entire AMR process, we collaborate closely with site operations personnel, ensuring the operating context is fully integrated.

All AMR deliverables are provided in site-specific document and data templates for easy upload to your Computerized Maintenance Management System (CMMS). Utilizing data collected from filters operating globally, we provide performance guarantees to ensure the benefits are achieved.

Benefits

- Improved production
- Reduced downtime
- Reduced inventory holding
- Improved total cost of ownership (TCO)



Metso

Professional services
Field services

MORE INFO:



Our professional field service offering ranges from comprehensive solutions covering maintenance and optimization projects to performing spare part assessments.

Know the condition of your equipment with detailed technical inspections, professional reporting and expert recommendations.

Our team of field service professionals are committed to serving our customers in a safe and efficient manner with adherence to strict safety procedures. Outotec has comprehensive EHS training programs and an impressive safety record of accomplishment.

Our life cycle service agreements include planned, preventive and corrective tasks that will increase your plant availability and improve equipment uptime with access to our expert technical knowledge.

Benefits

- Increased safety
- Reduced downtime
- Improved plant availability & reliability
- Spare part optimization
- Increased equipment life
- Increased competencies

Our field services team will ensure the correct critical and operational spares availability to avoid extended downtimes by means of inventory assessments. Spare and wear parts recommendations, highlighting lead times and criticality. Our field service team offers a full range of maintenance solutions. These include planned preventive, corrective and emergency maintenance activities. We also provide refurbishment, installation and commissioning services.

Our certified field service experts are best equipped to train your technical team on the maintenance of our equipment. We have customized training on key maintenance and repair procedures as well as product specific training and with a focus on safety in all procedures.

We have a flexible global operating model which brings us to wherever our customers are. Our global presence and local operations enable world-class engineering, project delivery and service for our customers.

Our experts form a worldwide network of extensive technical, engineering and operational capabilities. Additionally, we operate with our partners in order to deliver fast and reliable ramp-up and guarantee the best performance for our customer's investment.



Metso

Professional services

Component replacement labor

MORE INFO:



Major components require specialized personnel and tools for proper installation to ensure safety, meet tolerances, and avoid errors that reduce component lifespan.

Metso crews perform these types of changes regularly and are experienced in the proper and safe installation of the components. This reduces the risks for your team by minimizing their exposure to unfamiliar and complicated change-outs.

Metso crews utilize advanced planning tools, such as effective critical path planning, as well as scheduling and staging pre-outage activities to significantly reduce downtime. We can also supply specialized work methods to speed up major component changeouts. Using component replacement labor services also brings the advantage of having one point of responsibility for the maintenance event.

In some cases, OEM warranties can be extended when Metso crews perform the installation of major parts. With access to global knowledge centers, troubleshooting and adjustments can be done with confidence by our on-site crews saving time and money.

The first step is to determine the scope of work. Is the requirement simply assisting on-site with supervision utilizing an in-house crew, or will planning and coordinating all aspects of the maintenance event be required? Metso Engineers, Supervisors and/or Technicians will be deployed to the site to replace components according to the agreed-upon scope of supply.

Special lifting procedures will be identified and performed. Metso experts will conduct the required maintenance scope under the latest engineering specifications, standard procedures and benchmarking best practices.

Benefits

- Improved safety
- Increased uptime and availability
- Reduced maintenance costs



Metso

Professional services

Equipment refurbishments

MORE INFO:



Equipment is refurbished using OEM parts to ensure optimal restoration backed by our technical support providing a cost-effective alternative to secure a long-term solution.

Our team of experts meticulously inspect, disassemble, replace all damaged components and update obsolete parts to optimize the performance of your equipment.

Once the assessment is complete, we provide a comprehensive report containing a condition assessment and recommendations tailored to suite our customer.

We have adopted an integrated approach to all aspects of its Global Quality, Environment, Health and Safety (QEHS) Management System.

The system is the instrument by which we track, regulate and assess that our employees and contractors can perform their responsibilities confidently, consistently and efficiently, while at the same time providing you with an assurance you are receiving high-quality products and services delivered in a safe and environmentally responsible manner.

Refurbishments significantly reduce material requirements when compared with the procurement of new equipment which has a lower impact on the environment.

Original equipment manufacturer (OEM)

We are dedicated to providing our customers with the highest quality service. Our utilization of OEM spare parts assures customers of:

Benefits

- OEM Warranty
- Increased reliability
- Reduced operational costs
- Prolonged lifespan
- Performance optimization
- Cost effective

- Quality
- Warranty and support
- System compatibility
- Durability
- Spare and wear part availability



Metso

Professional services

Filtration inspections

MORE INFO:



Get fast, accurate information about the condition of your equipment, recommendations for maintenance, and improved operation.

3 Inspection packages for your Metso filters designed to reduce unplanned downtime, equipment failure, and risks associated with operating faulty equipment.

Undetected issues can lead to breakdowns and unplanned service work, significantly increasing repair costs and production losses.

The information provided will assist in minimizing unscheduled downtime and reduce long-term operating expenses. Our specialists can also recommend service agreements and spare parts.

Features

- Faster, easier inspections mean you get recommendations you can quickly act on
- Reports are clear, thorough and easy to share with colleagues
- Benchmark your filters and identify trends based on current and historical data
- Comprehensive data gathering improves your decision-making

Inspection packages

1. Filter Visuals and Vitals
Gain a quick understanding of the condition of your filter
2. Filter Mechanical Verification
Standard inspection package with specific adjustments and fixes
3. Filter Comprehensive/Customized
Complete, in-depth package with the additional check of The hydraulic unit and field circuit

Benefits

- Reduced downtime
- Extended filter lifetime
- Increased reliability
- Improved safety/sustainability
- Better visibility of maintenance requirements



Metso

Professional services

Installation and commissioning

MORE INFO:



Get expert support during your project start-up phase wherever you are in the world. Our experts will help to ensure your equipment performs according to agreed targets.

Features

- Professional, effective, and safe installation and commissioning of delivered equipment
- Expert assistance from metallurgists and process specialists
- Training services are included to ensure that personnel are fully on board with the new process and technology and can manage the plant operation in an optimal way
- Optional extended warranty

Scope

Depending on the equipment and process, the installation and commissioning service can include:

- Inspection of the plant and foundation
- Delivery package expedition and checking
- Equipment assembly/installation advice and inspection
- Pre-operational equipment testing
- Electrical and automation testing and inspection
- Water tests and test runs
- Initial continuous feed of raw material
- Process and equipment start-up

Benefits

- Increases safety
- Minimizes the risk of delays and breakdowns
- Provides a smooth production start-up and a shorter road to profitability



Metso

Professional services

Maintenance and repairs

MORE INFO:



As equipment ages, production efficiency and reliability can decline. However, proper maintenance and repairs can reduce aging to ensure your production goals are met.

Inspections and diagnostics

Get ahead of problems before they start. More effective management comes from better information. Our diagnostic services help with maintenance planning, issue identification and analysis, and determining improvement areas. Expert assistance from metallurgists and process specialists through:

- Mechanical and electrical inspections
- Equipment audits
- Inventory assessments
- Online condition monitoring

Repairs and refurbishments

Planned repairs: Metso offers a full range of maintenance services for mining equipment and repairs, from reconstructing surfaces to full rebuilds of large components. Skilled technicians with specialized tools are available at our repair centers or on-site at your facility. All repairs are handled end-to-end, guaranteeing safe execution and the correct parts.

Emergency repairs: When an unexpected failure occurs, Metso can help you restore production quickly. We identify the root cause, fix the problem and restore production as fast as possible. Once we have fixed the problem, we will identify long-term solutions to prevent issues from reoccurring.

Benefits

- In-depth expertise and knowledge
- Over 1,500 field technicians globally
- OEM quality for guaranteed safety and reliability
- End-to-end solutions
- Cost savings through reduced failure rates and extended equipment life

Maintenance planning tools

Experts focus on your specific priorities, bringing together safety, planning, documentation, inventory, staffing and reporting requirements. Services include:

- Criticality analysis to prioritize issues
- Failure analysis using FRACAS and other tools
- Custom maintenance software, CMMS
- Predictive maintenance and condition monitoring through Metso Metrics



Metso

Professional services

Service and repair centers

MORE INFO:



Add years of efficient use and valuable life to your equipment. We restore a wide range of equipment and components to the desired level with minimal downtime.

Tried and tested procedures

As an OEM, we have in-depth knowledge of OEM repair procedures and can ensure the use of genuine parts that fit your machine. We combine our decades of equipment experience with modern repair techniques and technology to offer the best repair even for older equipment.

No weak link in the equipment chain

Every component in a piece of equipment is like a link in a chain, if there is even one weak link, performance can suffer. Our repairs ensure equipment performs to its designed standards.

Risk reduction

Working with a Metso repair center ensures risk reduction. Firstly, you get firm quotes from the OEM repair center, minimizing surprises once the repair has been agreed upon.

Secondly, the use of OEM drawings and parts ensures that parts fit and perform to specifications, reducing further unplanned downtime.

Competitive rates

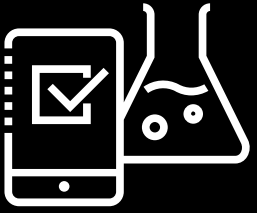
A Metso repair means you get a competitive rate and can rest assured that service problems will be fixed quickly the first time, resulting in long-term savings.

Benefits

- Improves efficiency
- Reduces operational and maintenance costs
- Reduces energy consumption
- Improves sustainability through lower waste disposal costs, parts recycling, and reutilization
- Allows continued use of familiar equipment

What to expect:

- Minimized downtime
- Higher machine availability
- Lower maintenance and parts costs
- Increased safety



Research and testing

Designed to enhance efficiency,
sustainability, and performance



Metso

Process optimization

Research and testing

MORE INFO:



Our unique portfolio of testing and process expertise as well as process simulation support mining operations to improve recovery, resource efficiency and sustainability.

Research and test services include evaluation of ore deposits and types, mineralogical characterization, feed material testing, sampling, materials selection, analytical chemistry, and flowsheet development.

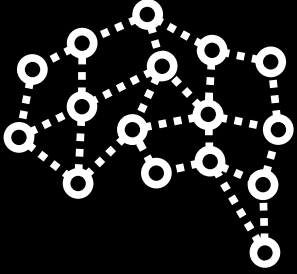
Our experimental research is carried out in our specialized laboratories, for example our fluid dynamics laboratory and full-scale testing plant.

Why test?

- Quick, reliable, and representative results that can be easily scaled up
- Improves process understanding based on calculations, literature studies, and tests
- Offers solutions from laboratory to pilot bench scale testing
- Ensuring optimal product selection and flowsheet optimization
- Ensures deep competence development in our key areas
- Provides performance and research data to our simulation tool
- Ensures optimal plant performance over the life of operation
- Ensures high quality of our products

Benefits

- Global network of testing and research centers
- Over 120 years of experience with pilot and bench-scale testing
- Testing for mining, hydrometallurgy, industrial and aggregates applications



Training

Bridging the knowledge gap



Metso

Training services

Metso Academy

MORE INFO:



We offer comprehensive and tailored training programs to improve your team's technical knowledge and improve safety, reliability and operational performance.

Metso Academy provides training that helps bridge the knowledge gap between your personnel, equipment and operational goals.

Metso Academy brings together a global team of Technical Training Instructors who are considered subject matter experts in their respective fields. With decades of experience and broad industry knowledge, we can provide high-quality training to your personnel.

Metso Academy can cover everything from theory to practical training, ranging from training on single pieces of equipment to plant-wide solutions.

We offer training on-demand and tailor our courses to customer-specific machines and processes.

Training

Theory training

Classroom-based course which covers basic operation principles, operator interface, safe use of Metso equipment as well as after-sales support.

Practical training

the practical course connects the classroom-based information to practical experience. The course provides operators and technical specialists with practical knowledge of running, maintaining, and troubleshooting Metso equipment.

Customized training

Builds up competence in Metso products and provides more in-depth information for designated equipment with thorough information on our equipment and technologies, process optimization insights as well as service procedures and tips to help customers move from reactive to proactive maintenance.

Benefits

- Improved safety
- Higher performance
- Global expert network
- Culture of safety and learning



Life Cycle Services

Performance-driven solutions



Life Cycle Services

offers integrated solutions for our business partners to achieve their goals from greenfield to brownfield

560+

LCS & MOI contracts globally

Maintenance & Technology Experts

40+ Service & Performance Centers

Full range of OEM parts and services

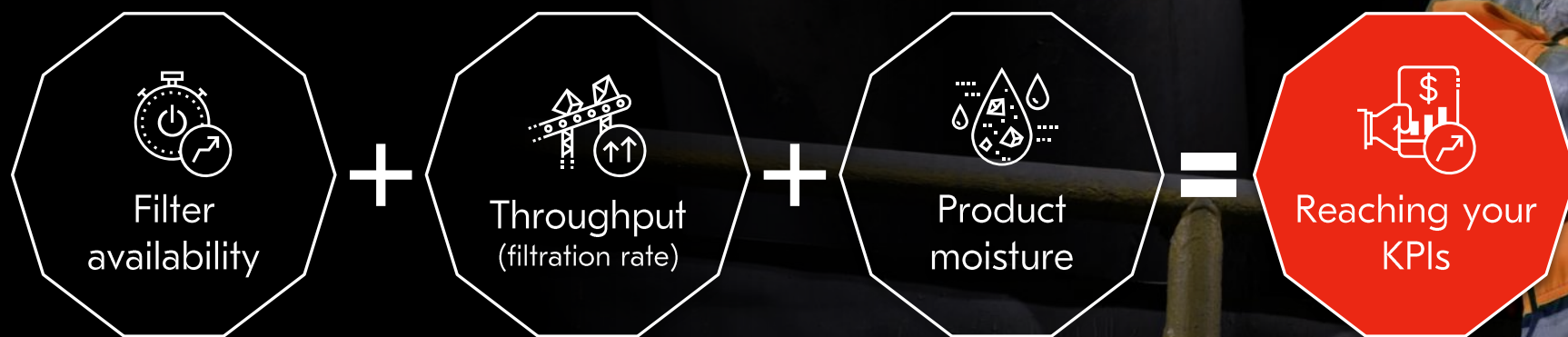
3 packages tailored to your needs

Reaching your KPIs together

Larox® PF enables great performance and availability levels, ensuring you meet your financial and HSE* targets. Our dedicated service team is here to protect what you already have and to build on top of that. We know that reaching your KPIs is extremely important – that is why we treat them as if they were ours.

You set the targets. We provide the solutions.

Even a small improvement in the filtration process, whether moisture level or filter availability, can significantly impact your business performance and strategic value to you and your stakeholders. And we know how to drive those positive changes!



Life Cycle Services for filtration

Performance roadmap

1 Inspections & technical support

Improved availability

Recommended parts

- Supply and inventory availability

Performance Assessment

- Improvement suggestions

Overhauls

- Advisory & planning

Training

- Operation & maintenance

2 Maintenance & reliability

Guaranteed availability

Filter Maintenance Readiness

- Optimized maintenance strategy

Preventive maintenance & parts

- Optimized system maintenance
- Advisory/execution (optional)
- High reliability

Optimization with Metrics Monitoring

- Ensure correct and safe operation

Plate pack reconditioning

- Reduce maintenance time
- Recycle used parts

3 Optimized performance

Guaranteed production & moisture

Optimization advisory

- Right filter parameters and filter media for different feed scenarios

Filter Optimizer

- Operational stability
- Optimized cycle time & energy

Thickener improvements

- Optimizer & modernizations
- Better filter feed quality & stability

Metso-owned inventory (MOI) and supply solutions

New equipment (leasing, boot) | Modernizations | Refurbishments

Semi-permanent or full maintenance

Full operation & maintenance



Metso owned inventory (MOI)

Every company needs timely access to the right parts, but managing costs, availability, and inventory levels can be challenging. Metso offers inventory solutions to optimize this balance, enhancing performance through a tailored mix of services.

> Package 1

Basic consignment

- Metso OEM quality parts, ready and reserved for you when you need them
- Simplified purchasing with fixed pricing
- Gain peace of mind with reduced inventory costs

> Package 2

Inventory and inspections

- Basic consignment plus equipment inspections
- Metso expert advice and recommendations on maintenance and needed parts

> Package 3

Inventory and capital spares

- Basic consignment plus payment plan for major spares
- Reduce risks – defray large upfront capital costs by instalment payments

> Package 4

Inventory and subscription

- An economical and flexible solution to a complex issue
- Secure parts availability for a low set subscription fee
- Parts can be designated to a single customer or pooled amongst several customers



Payments plans

Different options for different needs

Cost per ton (CPT) payments

Cost-per-ton payments plans remove cost spikes and charge you based on what you produce in a given month. This allows you to better predict costs and cash flows and ensures that mutual interests are perfectly aligned to maximize production.

The CPT rate is calculated by factoring in all the costs, including wear, spares, labor, and services. Tonnage is measured and mutually verified monthly. Total production in tons is then multiplied by the CPT rate to generate the final monthly invoice.

Performance or KPI-based payments

KPI targets can be linked to fixed fee payments, with Metso receiving additional payments for exceeding targets and vice versa – if targets are not attained.

Multiple KPIs can be considered in the agreements. Typical amongst are:

- Equipment availability
- Components lifetimes
- End-product quality
- Safety indicators.

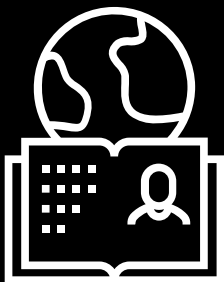
Upgrades and CAPEX deferred payments

Deferral plans let you make payments for investments such as upgrades or new capital equipment over a longer time period, rather than the date of purchase. This gives you financial flexibility to quickly acquire the solution you need.

Fixed monthly payments

All LCS services and parts could be provided through a monthly fixed fee for the duration of the agreement.

We mutually predetermine your payment schedules to allow better predictability. Once we have defined the scope of your LCS for filters program (including services, spares, wears, and so on), we will set up an amortization schedule, laying out invoice amounts monthly.



Customer cases

Achievements that inspire

Case: Quellaveco copper mine, Peru

FFP filter retrofit

Challenge

The defined goal was to increase the capacity of the FFP filters by 7.7% by adding 5 new plates and mechanical components to each filter.

Solution

- Addition of 5 plates to each filter
- Replacement of support brackets
- Installation of mechanical accessories
- Adjustments and tests to ensure proper functioning

Results

- Successful modification
- These solutions resulted in a production capacity increase of 14.3% to 16.3%, far surpassing the initial target of 7.7%.
 - Furthermore, the final concentrate maintained a humidity level of 8%.



This is how the Larox FFP filter helps you reach your targets

EFFICIENCY & PERFORMANCE

Regular maintenance, upgrades, and process optimization ensure filters operate at peak efficiency, optimizing filtration cycles and throughput.

AVAILABILITY & RELIABILITY

OEM parts, proactive maintenance, and refurbishments minimize downtime and extend equipment lifespan, ensuring consistent and reliable operation.

SAFE, SUSTAINABLE OPERATIONS

Proper training, refurbishments, and process optimization reduce operational risks, enhance water recovery and minimize waste.

FLEXIBILITY & SCALABILITY

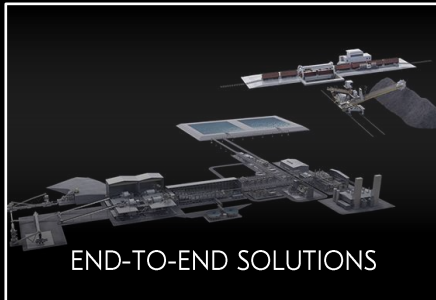
Upgrades and process optimization allow the Larox FFP to adapt to changing process demands, ensuring long-term operational flexibility and growth potential.

COST-EFFECTIVE OPERATIONS

Proactive maintenance and refurbishment reduce unplanned failures and costly downtime, lowering the total cost of ownership.



Your #1 service partner from pit to port



END-TO-END SOLUTIONS

We carry the industry's most comprehensive aftermarket offering, and it's not limited to Metso equipment.



OPTIMIZED PERFORMANCE

We connect the dots and solve bottlenecks in a holistic way, elevating your process performance to a whole new level.



DIGITAL MINE

45+ digital solutions that help supercharge your already optimized process, adding an extra boost to performance.



SUSTAINABLE OPERATIONS

Responsibly produced, long-lasting parts, designed and optimized to minimize wastage, improve energy efficiency and emphasize safety.



TRUSTED PARTNER

Our dedicated team of experts bring you the unique advantage of local presence backed up with a global network of first-class engineering, manufacturing and service.

You set the target. We provide the solution.

Metso is a frontrunner in providing sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally. By helping our customers increase their productivity, improve their energy and water efficiency and environmental performance with our process and product expertise, we are the **partner for positive change**.

Metso