

results



Metso Outotec's magazine for mining & aggregates customers >> Issue 1, 2021

Metso:Outotec

Partner
for positive
change

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Dear Customers,

I hope that you and your families are keeping safe and business is also improving.

In these uncertain times, we need sharper focus on delivery & service capabilities to ensure business continuity for our customers. Therefore, we have ensured that our operations continue to deliver despite current challenges, in a safe manner. We also continue to invest in the country to expand our capacity and launch new products.

As a testimony of our services capabilities, we have achieved a new milestone of operating more than 100 Life Cycle Services contracts in the country.

We also continue to develop sustainable solutions which help to save energy & water, reduce emissions and promote circular economy. Hence, we have launched comprehensive Tailings Management Solutions which include thickening, filtering and dry material handling process. This would support in solving a major challenge on Tailings Management for the mining industry.

Post the merger of Metso and Outotec, we are in a unique position to offer end-to-end solution from ore to metals, as a part of our portfolio. I would like to wish you a positive trajectory for your business and look forward to supporting you with sustainable technologies & services.

Kamal Pahuja
President,
Middle East & India,
Metso Outotec

Metso Outotec in brief

Metso Outotec is a frontrunner in sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally. By improving our customers' energy and water efficiency, increasing their productivity, and reducing environmental risks with our product and process expertise, we are the partner for positive change.

Metso Outotec is committed to limiting global warming to 1.5°C with Science Based Targets. We ranked 8th on the 2021 Global 100 list of the world's most sustainable companies.



15,000+ employees



90+ nationalities



EUR 3.9 billion sales in 2020



50+ countries



150 years of expertise in mining and metals

Our businesses

Aggregates

Crushing and screening equipment for the production of aggregates



Mining

Equipment and full plant solutions for minerals processing



Metals refining

Processing solutions and equipment for metals refining and chemical processing



Services

Spare parts, refurbishments and professional services for mining, metals and aggregates customers



Consumables

Comprehensive offering of wear parts for mining and aggregates processes



Our offerings:

Aggregates



Crushers



Screens



Feeders



Aftermarket & Services



Digital Solutions

Know more about our Aggregates offerings



Mining



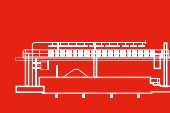
Crushing & Screening



Grinding



Separation



Dewatering



Beneficiation



Slurry handling



Material Handling



Tailings Management



Aftermarket & Services

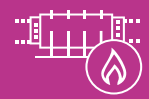


Digital Solutions

Know more about our Mining offerings



Metals refining



**Iron-ore
Agglomeration**



**Chemical
Processing**



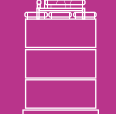
**Alumina
Processing**



Roasting



Smelting



**Hydrometal-
lurgy**



**Aftermarket &
Services**



**Digital
Solutions**

Know more about our Metals refining offerings



Unique strengths for our customers' benefit



Full offerings

Offering from ore to metal to improve customers' profitability



Sustainable technologies

Technologies that reduce emissions and energy, resource and water use



Services

Industry-leading service expertise and comprehensive global network



Innovation and R&D

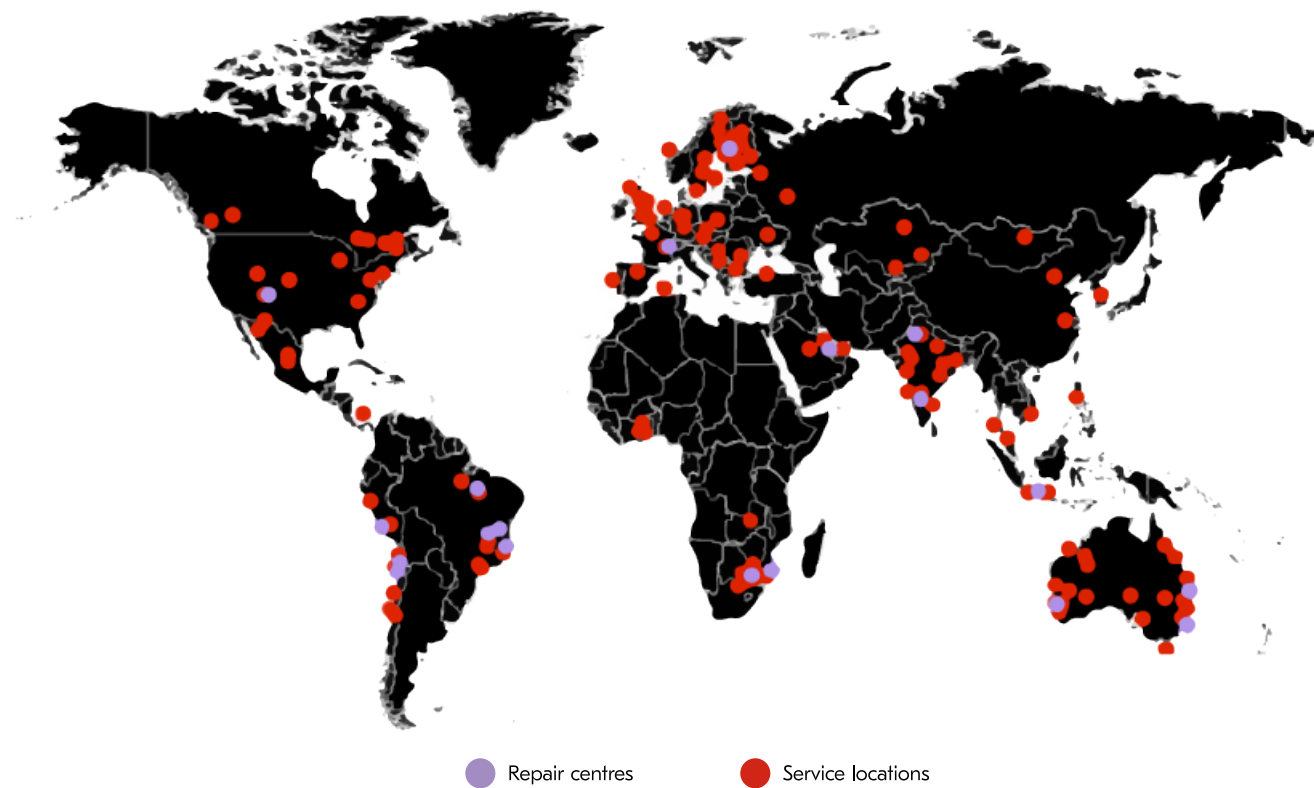
Strong combined innovation and R&D power



Responsible partner

Uncompromising safety in offering and operations

Industry-leading service expertise and global network



3
performance centres



~5,000
service experts



~140
service locations

Services to support a new generation of Sustainable edge technologies



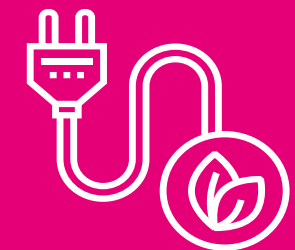
Water efficient solutions, sustainable tailings solutions



Circular solutions, equipments lifecycle solutions



Solutions to eliminate **environmental, health and safety, and societal** risks at customer operations



Energy and emission efficient solutions in comminution, beneficiation

See how we have solved our customers' business challenges #CustomerSuccess

Our customers:
Our references



Vedanta
Limited



JSW
Salem



Hindustan Zinc
Limited



Ravitej
Projects



Artificial
Sand



Immunity
Group

Disclaimer

This magazine, including all claims regarding operational performance, is intended for sharing information on successful customer cases. Metso Outotec makes no warranty or representation whatsoever, either express or implied, that similar or any performance levels or improvements are achievable for all sites or for any particular site. Metso Outotec assumes no legal liability for any use of information contained in this presentation. If requested, Metso Outotec can execute a site specific survey to provide an estimate of performance or performance improvement for a specific site and operation. As each site has a different process and is at a different stage of development, the actual performance can vary significantly.

Metso Outotec was formed on July 1, 2020 when Metso and Outotec merged into one company. This case study has been written prior to the merger under the old company name.

#Customer Success

Vedanta relies on Metso pumps, valves & seals for continuous plant operations



I would like to commend and compliment the Metso team who work here shoulder to shoulder with my team members, on the excellent safety record they have. I am very satisfied & proud to share that Metso has been a wonderful partner.

Mr. Rakesh Mohan
Chief Operating Officer, Vedanta Limited



Read the customer case



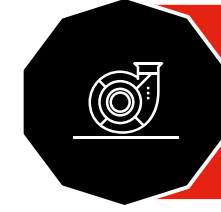
Watch the customer video



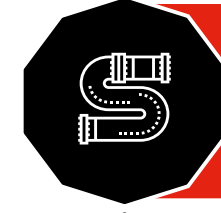
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90-95% process equipment of Metso



600+ pumps, valves & seals supplied



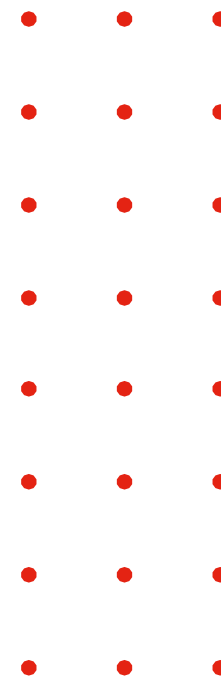
100% availability of spare pumps



32 skilled technicians stationed on-site



O&M (Life Cycle Service) contract operational since **2005**



Read the customer case



Watch the customer video



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#Customer
Success

Metso's material handling solutions helped JSW achieve operational precision with huge cost saving



JSW always focuses on adopting newer technologies to sustain its growth. One such technological breakthrough was the installation of the wagon tippler with a shifter mechanism from Metso. This eliminated the post-tipping line requirement, and we saved almost one kilometer of space.

Mr. K Satish

Manager, Blast Furnace RMHS & Wagon Tippler, JSW Salem



Read the customer case



Watch the customer video



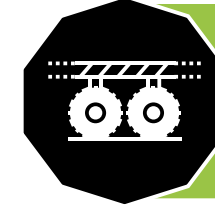
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Saving **1 km** of space at outhaul



Reduced railway demurrages



Wheel gripper to handle gradient issue



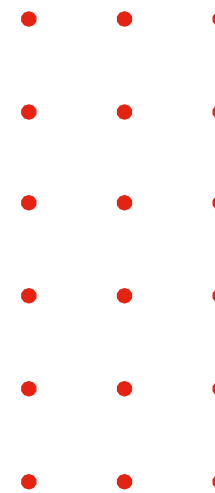
Tailor-made solution with in-house design capabilities



Automated circuits for enhanced safety



Ease of operations



Read the customer case



Watch the customer video



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#Customer
Success



HZL enhances grade recovery using Metso solutions



We are able to manage our grades and recoveries with the new flotation cells, even though we are operating at a higher capacity. With the same flotation cell and with variance in the feed grade, the output varies from 3 to 6 TMC (thousand million cubic).

Mr. Aamir Khan

Associate General Manager, OD & Head - Mill at Hindustan Zinc Limited



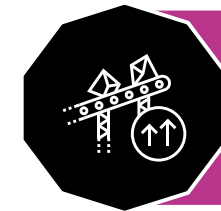
Read the
customer case



Watch the
customer video



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Enhanced output: **2 MTPA**



Crushing **17000-18000 tonnes** per day



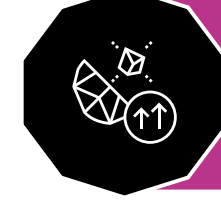
Better yield



Increased uptime



Better end-product quality



Improved recovery of minerals

Recovering **+89%** lead from **+55%** ore grade and **+91%** zinc from **+51%** ore grade with the help of Metso crushers, RCS flotation machines, pumps, VisioFroth™ cameras and screens.



Read the
customer case



Watch the
customer video



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#Customer
Success

Metso backs Ravitej Projects for its prestigious irrigation project in Telangana




Our relationship with Metso started way back in 2007, and today we have seven Nordwheeler plants from Metso. Metso has been a backbone for us over these years and we have always trusted Metso when the stakes are high.

Mr. P. Adinarayana
Partner at Ravitej Projects Pvt. Ltd.

 Read the customer case

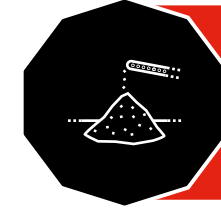
 Watch the customer video

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Requirements



24 months timeline for completion of project



80mm aggregates requirement



8 lac tonnes — total aggregates required/delivered

Delivered



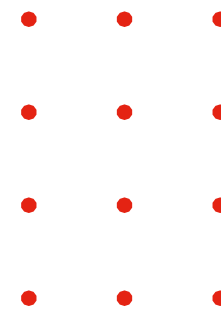
18 months project completed and handed over



50% saving in manpower costs




5-6% saving in overall project costs



 Read the customer case

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#Customer
Success



Manufactured sand - a profitable solution!

Artificial Sand reaping profits using Metso advanced technology



With the installation of Metso equipment, we are able to save **INR 3 (EUR 0.03)** per ton, which annually amounts to a saving of **INR 24 lacs (EUR 30,000)** on power bill alone, along with delivering best quality aggregate and manufactured sand.

Mr. Rama Krishna
Owner, Artificial Sand



Read the
customer case



Watch the
customer video

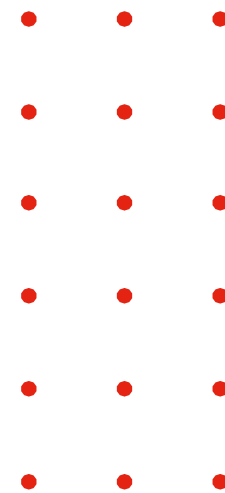


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- **60,000 tons** of sand production per month
- **INR 24 lacs** annual saving on power bills alone
- **80%** market share hold with increased demand
- **8 end-products** produced from three-stage modular plant

Life Cycle Services advantage

- Uncompromising end-product quality and quantity
- Measurable cost effectiveness
- Robust and reliable equipment/service support
- Advance planning of spares and preventive maintenance



Read the
customer case



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customer video



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#Customer Success

To increase plant production and save costs, Immunity group relies on Life Cycle Services!




After experiencing Metso LCS and Metso Metrics service, we can clearly state that the notion that Metso LCS is expensive is a misconception. It's an investment that one puts into their own plant, which in turn gives more output, hence multiplying the profits.

Mr. Prashant Thakur
Director, Immunity Group

 Read the customer case

 Watch the customer video

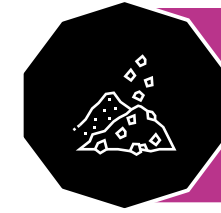
 Connect with our experts



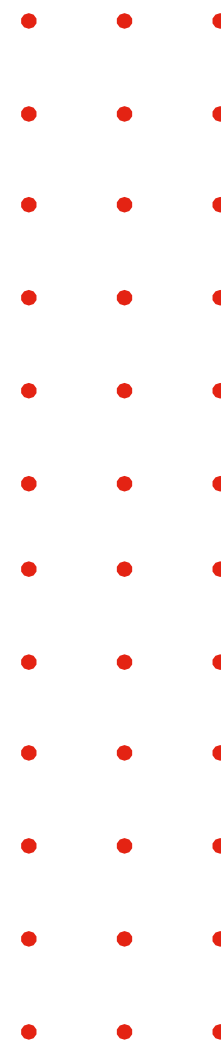
Crushed **75,200 tonnes** from one **250 tph** crushing & screening plant from Metso



Secured orders worth more than **INR 2,000 crores (EUR 250 M)**



Able to sell more than **2 lac tonnes** of aggregates per month from its plants



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 Watch the customer video

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Products / solutions

Our offering consists of products, technologies and services which help our customers improve efficiency, increase productivity and reduce environmental and economic risks.



**Nordberg® C120™ jaw
crusher**



**Nordberg® HP300™ cone
crusher**



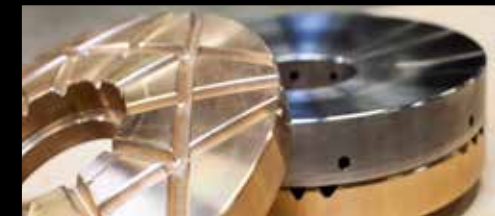
**Metso Outotec CVB Series™
inclined screens**



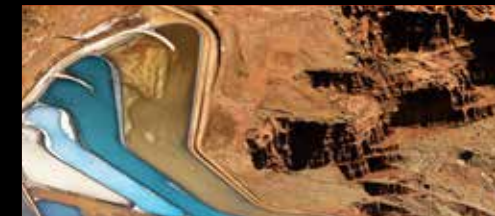
**MD Series mill discharge
pumps**



**Upgrades and retrofits for
mining equipment**



**Spare parts for mining
equipment**



**Metso Outotec Tailings
Management solutions**



Filter Cloths

Nordberg® C120™ jaw crusher

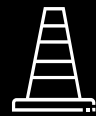
Perfect fit for large-scale quarrying and mining applications



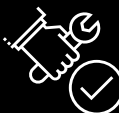
Top-level reliability



Superior performance



Safe to operate and maintain



Easy to install

Nordberg® C120™ is a reliable jaw crusher engineered especially for quarrying and mining applications. Designed based on customer feedback and decades of experience at various customer sites, Nordberg® C120™ jaw crusher provides excellent productivity and low cost per ton, regardless of the end product.

[Know more about the product](#)



[Connect with our experts](#)



Nordberg® C120™ jaw crusher is generally used as primary crusher, as the first step of size reduction. It prepares the feed for the secondary crusher in a crushing and screening process. However, due to its versatility, Nordberg® C120™ jaw crusher can be utilized in later stages of the crushing process as well, depending on the application and processed material.

Nordberg® C120™ jaw crusher is the result of extensive product development and research. Cavity, kinematics and operating parameters have been defined and optimized to ensure the outstanding performance for which Nordberg® C Series™ jaw crushers are known and valued. Crusher height gives the steepest possible cavity cross-section, and the nip angle high up in the cavity, together with an aggressive well-aligned stroke at the bottom, ensure high throughput capacity and reduction.

[Know more about the product](#)

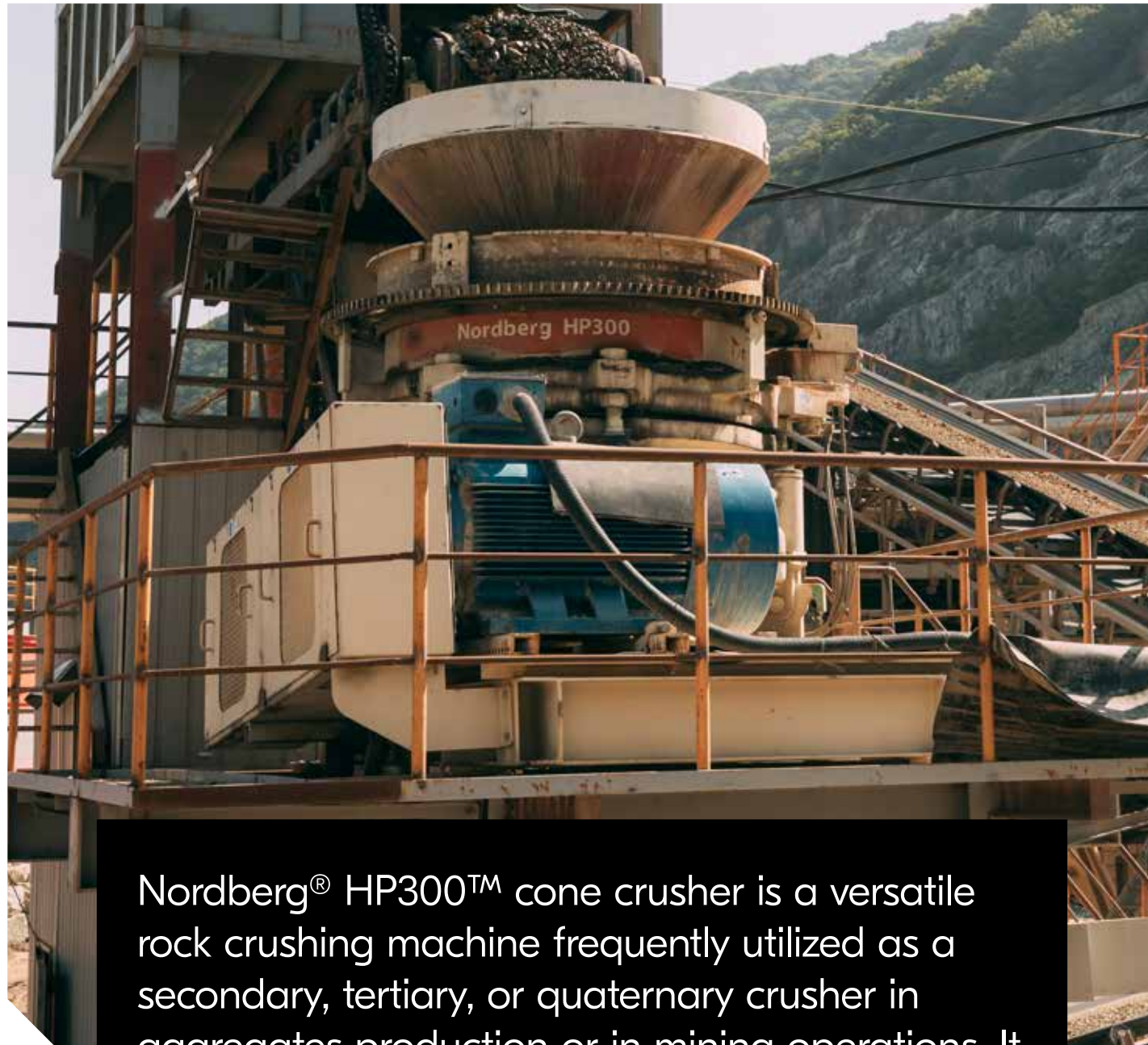


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Nordberg® HP300™ cone crusher

Optimized stationary, portable and mobile crushing performance



Nordberg® HP300™ cone crusher is a versatile rock crushing machine frequently utilized as a secondary, tertiary, or quaternary crusher in aggregates production or in mining operations. It is part of the world's most popular cone crusher series, and designed for high productivity, with low operating and wear costs.

[Know more about the product](#)



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Top-level reliability

Revolutionary combination of crusher speed, eccentricity, and cavity profile



Safe and user friendly

Engineered for your needs for improved safety and operation



Cost efficient and ecological

Designed to save energy and reduce your investment cost



Less downtime, more confidence

Reliable and operating for longer

Nordberg® HP300™ cone crusher is a medium-sized model in the renown Nordberg® HP Series™ cone crushers family. It is an efficient crusher utilized in aggregates production as well as in mining operations. Depending on the size of a crushing plant, Nordberg® HP300™ cone crusher can normally be found in the second, third or fourth stage of the crushing process.

Nordberg® HP300™ cone crusher is available as traditional stationary but also as portable and mobile versions.

[Know more about the product](#)



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Metso Outotec CVB Series™

inclined screens

Durability and safety for demanding screening operations

Metso Outotec CVB Series™ inclined screens are often used in quarries, gravel pits and mines, as well as in mobile screening applications. Ideal for high-capacity end-screening, rinsing, and wet processing, Metso Outotec CVB Series™ inclined screens can handle both fine and coarse materials.



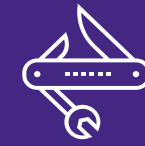
Metso Outotec CVB Series™ inclined screens are circular motion screens.

The shaft line is positioned at the center of gravity resulting in a circular motion on all points of the screen. The particles are moved forward by the screen motion and by the gravity effect resulting from the screen angle. The travel speed of the material is even all along the decks.

[Know more about the product](#)



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Wide range of applications

Abrasive rock, soft rock, gravel, recycling, industrial materials, and slag



Durable screen design

Weld-free crossmember sections reduce the risk of fatigue stress



Adjustable settings to optimize efficiency

Adjustable screen angle. Wide range to select optimal stroke and RPM parameters



Reduced downtime

Low operational costs and high availability of wear and spare parts



[Know more about the product](#)



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MD Series mill discharge pumps

Industry's robust technological solution built for sustained efficiency and uptime



Designed for efficient operation and longest wear life in grinding mill circuits to match the mill's uptime. With excellent resistance to abrasion and erosion, the MD series mill discharge pumps are known for their durability in pumping highly abrasive slurries with the latest in wear reduction technology.

[Know more about the product](#)



[Connect with our experts](#)



Modular and compact design

Industry's cutting-edge design best suited for highly abrasive slurries in grinding mill circuits



Highest impeller aspect ratio in the industry

Sustained efficiency and performance. Lowest total cost of ownership



Upto 4,000+ hours of service life

Latest in wear technology using high-performance materials with excellent resistance to abrasion & erosion



Global expertise, local support

Pumping and minerals processing professionals in over 60 countries in the world



[Know more about the product](#)



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Upgrades and retrofits for mining equipment

Delivering a real and sustainable differences



As your production goals evolve, so should your equipment. For the latest technology and efficiency, sometimes you don't have to look very far. Your existing assets have the potential to take on significant improvements. We are here to support you, from identifying upgrade options to implementation.


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Innovation
Over 20 global R&D facilities focused on advancing our solutions



Expertise
Equipment engineering and design knowledge coupled with extensive field experience



OEM quality
Strict standards and tolerances for guaranteed safety and reliability



End-to-end solutions
From planning to design to project management and execution

[Know more about our service offerings](#)

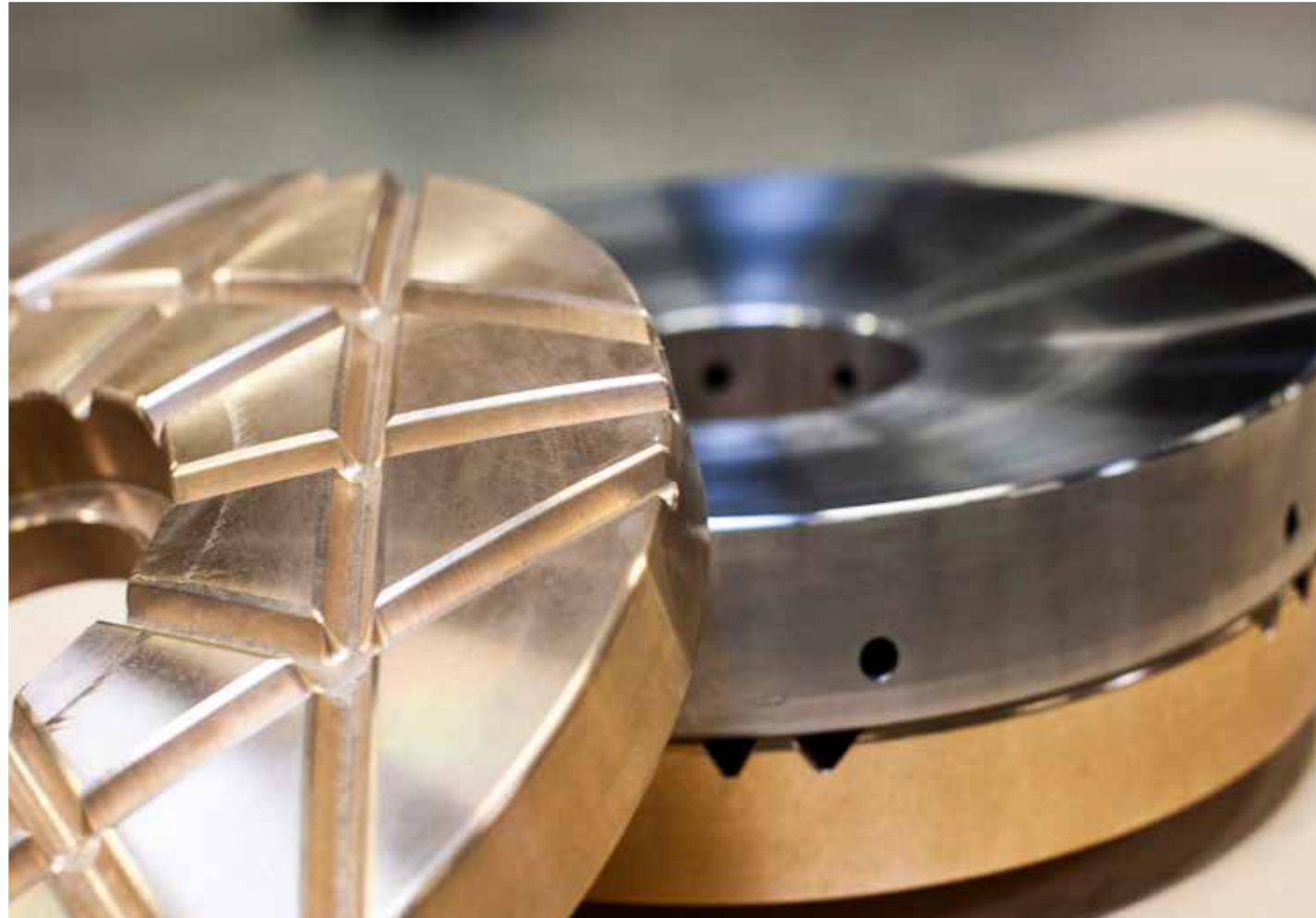


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Spare parts for mining equipment

Rely on OEM experts because not all parts are created equal



Without proper parts, equipment cannot function optimally. While often seen as a simple transaction where all parts look the same, the truth is that parts are critical and can greatly impact production and profitability. Metso Outotec is here to support you, from standard replacements to turnkey programs.

[Know more about our service offerings](#)



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OEM quality

Applying the strictest standards and tolerances for guaranteed safety and reliability



Expertise

Over 100 years of experience designing and supplying hard-working equipment and parts



Availability

With 150 distribution centers world-wide, we supply parts where and when you need them



End-to-end solutions

From original to 3rd party to installation, we can support any equipment type



[Know more about our service offerings](#)



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Metso Outotec Tailings Management solutions

Metso Outotec Tailings Management is bringing change through dewatering, handling and reprocessing of tailings. No other OEM can provide the full solution that Metso Outotec can.



Know more about solutions



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Metso Outotec Tailings Management solutions' benefits



Up to 90% water recovery by the Metso Outotec Filter solutions



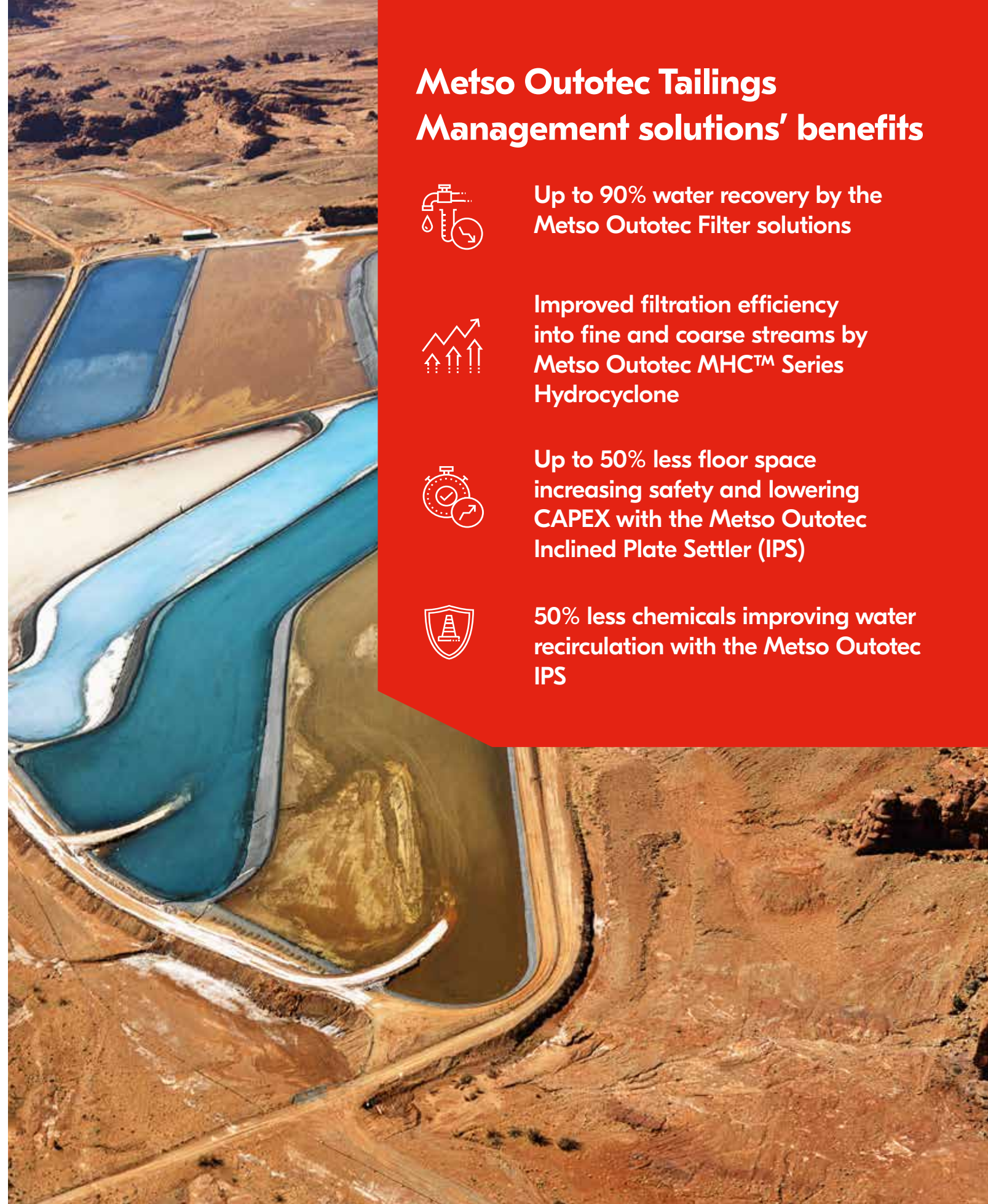
Improved filtration efficiency into fine and coarse streams by Metso Outotec MHC™ Series Hydrocyclone



Up to 50% less floor space increasing safety and lowering CAPEX with the Metso Outotec Inclined Plate Settler (IPS)



50% less chemicals improving water recirculation with the Metso Outotec IPS



Know more about solutions



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Filter Cloths

Based on decades of experience, Metso Outotec offers customers unsurpassed filter cloth quality, improved availability, and optimized process results for overpressure and vacuum filters; Larox® PF, Larox® RT/RB, Larox® FP, Larox® FFP, Larox® LSF, Metso VPA, and Metso Tube Press filters.



[Know more about solutions](#)



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Reduced cost of ownership and risk of downtime



Prompt service support with Metso Outotec's wide-spread service network



Enhanced availability with Metso Outotec's large network of warehouses



Long-term service contracts with our new offering of Life Cycle Services (AMC & OMC)

[Know more about solutions](#)



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News Updates

100+ Life Cycle Services contracts (LCS) with its crushing & screening customers in India

Metso Outotec has passed the milestone of 100+ Life Cycle Services contracts on Jan, 2021 comprising of both Annual Maintenance Contract (AMC) & Operations & Maintenance Contract (OMC) with its aggregates & mining customers in India.



Life Cycle Services delivers

- Customizable programs to meet specific needs
- Entire after-market portfolio that improves business performance
- Scheduled inspections to complex process optimization efforts
- Improved safety and reliability
- Higher production & resource efficiency

Exceeding production targets at Tata Steel Katamati, India

Life Cycle Services team (LCS) team at Tata Katamati surpasses targets while keeping safety in check during pandemic

8.89 LT HI, 2020 production target

9.06 LT HI, 2020 production achieved

Year 2015 1st LCS contract signed

Katamati 1st mobile phone free site in India



Metso Outotec takes pride to be a part of the world's longest highway tunnel - Atal tunnel



Metso Outotec technology was chosen to support the project with a tailor made, 200 tph, crushing & screening plant along with a sand trap to build this tunnel in one of the toughest terrains that faces extreme climatic conditions.

Metso Outotec ranked 8th on the global 100 list of the world's most sustainable companies!

Corporate Knights, the Toronto-based media and investment the advisory company analyzed 8,080 companies on environmental, social and governance indicators relative to industry peers using publicly available information.



The frontrunner in sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing, metals refining and recycling industries globally.

Committed to limiting global warming to 1.5°C, with targets that are validated by the Science Based Targets initiative.

Next-generation HRCe for superior grinding and energy efficiency



Energy efficient



Lower circulating loads



Increased throughput



The new HRCe comes with a decreased installation CAPEX compared to the HRC. Changes in design allow for maximum productivity with proven technology that leads to superior grinding efficiency.

Keep yourself updated!

Metso:Outotec

Please reach out to the editor for any suggestion/feedback at
mayank.sharma@mogroup.com

Mayank Sharma
Editor

For more updates follow us on:

