

Metso

Lokotrack® e-Power solutions

Better business with diesel-electric hybrid machinery

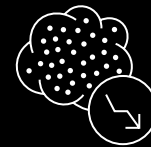


Think hybrid

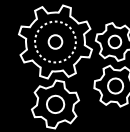
Mobility and versatility are at the heart of the Lokotrack® product line. Wherever your job takes you, the Lokotrack® e-Power solutions make sure you have the advantage of always using the cleanest, most economical power option.



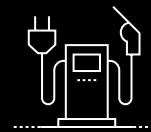
Hybrid power for savings
and sustainability



Compliant to the
strictest regulations



Long service life with
less downtime



Power grid or diesel fuel —
change with a flick of a switch

Twice the opportunities

There is no beating the flexibility of a modern low-emission, low-noise diesel engine – with a full tank you can work for days anywhere. But there is no beating the economy, silence, cleanliness and easy maintenance of an electric power, either. So why not take both?

The Lokotrack® e-Power solutions gives you twice the choice – with new job opportunities, cost savings and ease of maintenance. And it has been tested, proven and developed for decades.

Compliance in the city



Electric power has the advantage of being quiet, emission-free and economical. Add the Lokotrack® Urban™ noise and dust suppression systems, and you can crush and screen practically anywhere – in compliance with the strictest regulations.

Flexibility out in the wild



Diesel power enables you to go anywhere and be ready for anything. Add the legendary Lokotrack® agility and compact, hydraulically powered transport mode, and you can always be where you are needed – quickly and economically.



Reasons to go Lokotrack® hybrid



Stable crushing power with electric motor



Flexibility with selectable power source



Savings with external grid connection



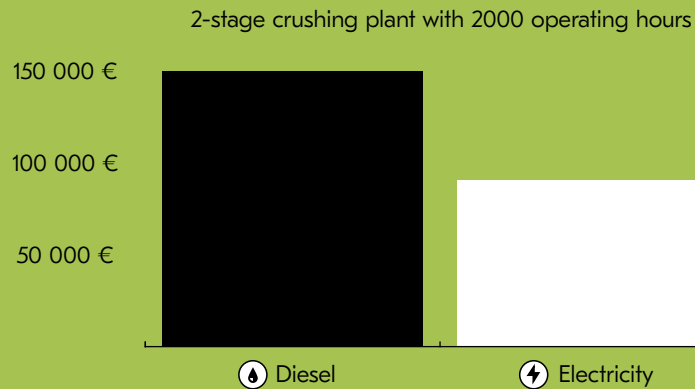
Easy speed adjustment with frequency converter



Power reserve with "oversized" generator

More tons for your money

Fuel costs are high — and will stay that way. While there is global variance, it can be said that electricity is always cheaper per kW than diesel fuel. Here is an example on how you can save on fuel costs alone.



Up to

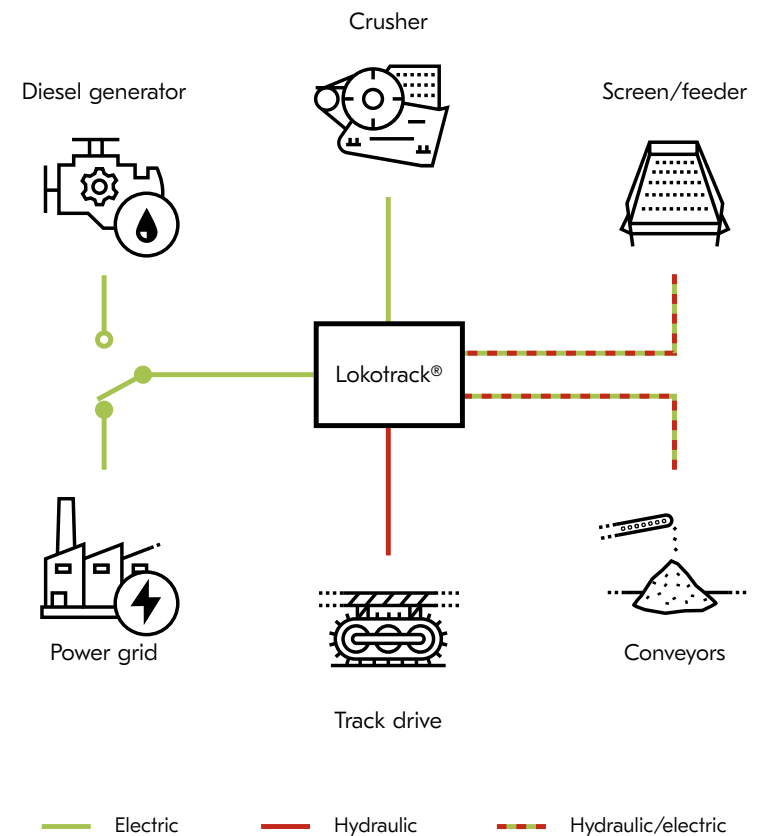
40%

savings in energy cost with electricity

Two ways to power electric crusher and screen

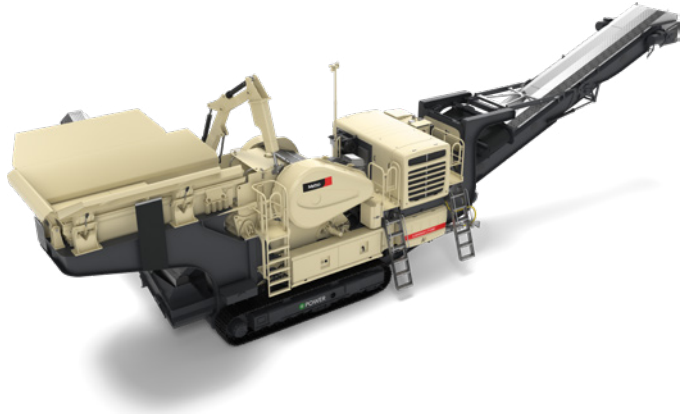


On e-Series Lokotrack® crushers and screens, all material processing functions are electric. The electricity can be produced either with a built-in diesel generator or from the grid. Either way, the use is more economical and less polluting – and often you can drive two Lokotracks with a single generator. For tracking, diesel engine is always used.



Lokotrack® e-Power solutions

Jaw crushers



Lokotrack® LT120E™

Cone crushers



Lokotrack® LT330D™

Mobile screens



Lokotrack® ST4.10E™

- Lokotrack® ST2.8E™
- Lokotrack® ST3.8E™
- Lokotrack® ST4.8E™
- Lokotrack® ST4.10E™

Technical specification

	Type	Weight	Crusher intake/Feed size	Crusher drive	Crusher motor	Diesel power	Generator	Screen size	Decs
Jaw crushers									
LT120E	Jaw	65 t (143,300 lbs)	1200 x 870 mm (47 x 34")	Electric	160 kW	310 kW	420 kVA		
LT130E	Jaw	105 t (231,500 lbs)	1300 x 1000 mm (51 x 39")	Electric	185 kW	403 kW	500 kVA		
Cone crushers									
LT330D	Cone w/ screen	70 t (154,200 lbs)	230 mm (9")	Electric	315 kW	563 kW	700 kVA	5500 x 2000 mm (6 x 18')	3

	Type	Transport weight	Screen size	Decs	Diesel power*	Electric pump-unit
Mobile screens						
ST2.8E	Multi-use screen	26 t (57,300 lbs)	4860x1520 mm (5 x 16')	2	106 kW	2x45 kW
ST3.8E	Fine screen	30 t (66,100 lbs)	5480x1520 mm (5 x 18')	2	106 kW	2x45 kW
ST4.8E	Fine screen	32 t (70,500 lbs)	5480x1520 mm (5 x 18')	3	106 kW	2x45 kW
ST4.10E	Fine screen	33 t (72,700 lbs)	6000x1520 mm (5 x 20')	3	106 kW	2x45 kW



Direct electric operation has proven to be the right solution, as the investment is quickly paying itself. At the same time, the site uptime is higher with much less service."

Sigurdur Sigurdsson, Steypustöðin ehf, Iceland



Iron men, electric machinery

On a quarry near Reykjavik, the conditions are extreme. The wind can tip an empty truck, but Steypustöðin can still maintain a steady 200 tons/hour production of concrete materials for their own factory. This is thanks to "iron" personnel that is not afraid of weather as well as Lokotrack® crushers and screens — electrically operated Lokotrack® LT120E jaw crusher and LT330D cone crusher.

"For us, the most important features for crushers and screens are good mobility and reliability. Whenever the weather permits, the crushers must run all the time."



An electric drive was an essential factor for us when choosing the new equipment. In future, we'll be able to run the whole chain using only one generator set."

Jarmo Stenberg, JK Sorajaloste, Finland

Economical and environmentally friendly crushing

JK Sorajaloste, based in Jokioinen, Finland, recently electrified its crushing chain's primary crusher with a Lokotrack® LT120E™ diesel electric crusher. While crushing hard rock, the fuel consumption has not risen much above 20 liters per hour. With these settings, approximately 3,000 tons of material is produced for the fine crushing stage during a 15-hour working day – about 200 tons per hour.

"Electricity is also an environmentally friendly power source. We frequently carry out crushing operations in groundwater areas, where an electric drive is often the only permitted crushing method"



The full electrically driven unit needed to be split into parts for lowering. And the constant crushing capacity had to reach 300 tons per hour."

Christoph Koman, Swietelsky Tunnelbau, Austria



Custom crusher for special need

The Semmering Base Tunnel consist of twin tunnels with total lengths of 273 kilometers. Lokotrack® LT106E jaw plant is customized so that the chassis can be split easily into two parts. In addition, the feeder was disassembled for lowering down with the elevator. Down at a depth of 400 m, the Lokotrack was assembled again to be ready for crushing.

"This jaw plant with IC control is easy to use for our operators. The adjustable hydraulic crusher setting is also a big plus – we do not need to stop crushing while adjusting the jaw."



The diesel electrical power clearly reduces fuel consumption. We were able to achieve a consumption level of some 43 liters for the entire double-stage chain."

Vesa Hartikainen, E. Hartikainen, Finland

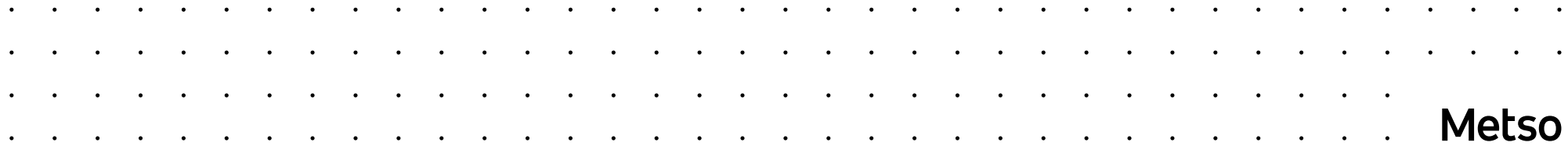
Urban crushing on a tight schedule

In the Koirasaari area of Helsinki, E. Hartikainen had to turn blasted rock into a total of 230,000 metric tons of crushed stone of different types in just 49 days. Due to the proximity of an urban area, crushing was only allowed for eleven hours per day. To eliminate dust, high pressure water spraying was used in the double-stage plant throughout the project.

"There is always some running in and fine-tuning involved when using a new machine. All in all, the new Lokotracks have been highly functional."

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**.

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