MMU
Mobile Mining Units

**The MMU represents the future of sustainable mining.**

It allows for the necessary extraction of essential minerals, while at the same time reducing impact on the local environment, and allowing sites to be quickly returned to pre-mine condition.

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Technology

Designed by Mineral Technologies, an excavator-fed Mobile Mining Unit is a high-performance mining solution for the mineral and silica sands industries. It is engineered to improve system availability, orebody yields, throughput and overall mineral recovery.

The MMU offers significantly lower operating costs compared to conventional dry mining methods.

It is well suited to challenging orebodies and narrow strandline deposits with high advance rates.
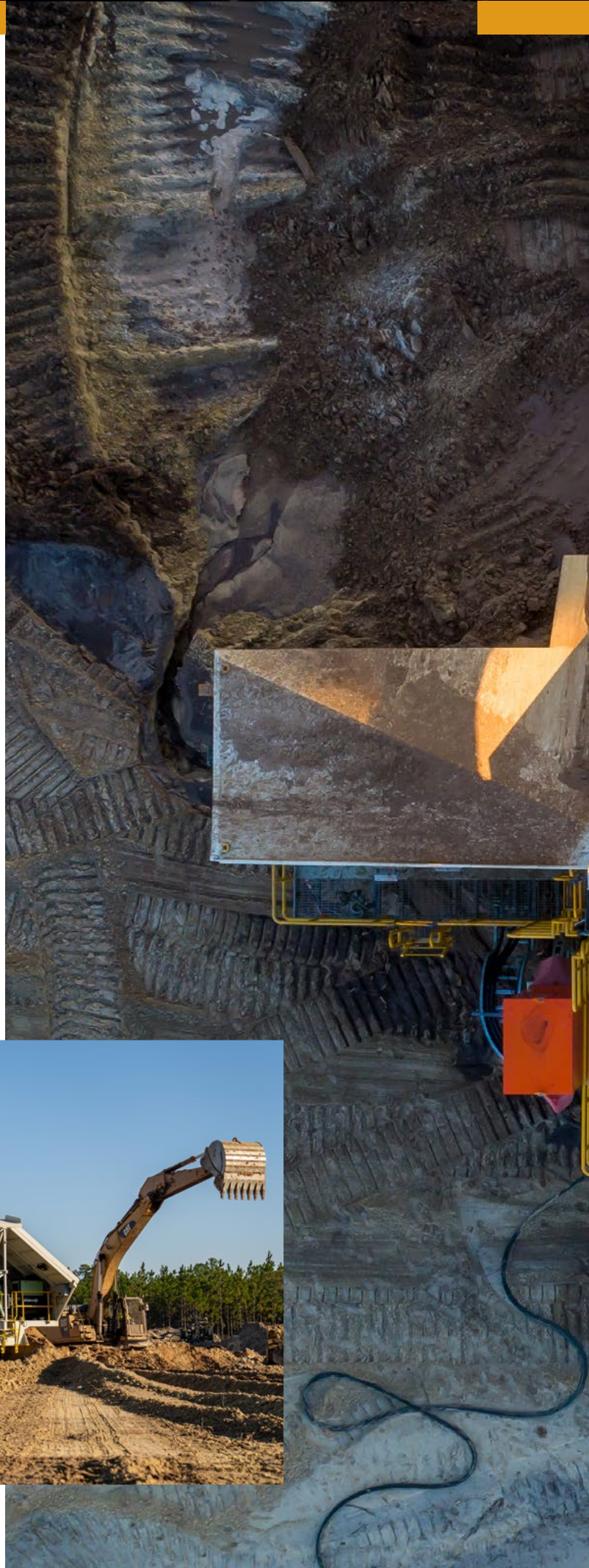
Advantages

- **Increased safety** from the reduction of heavy mobile equipment movements and fewer personnel required.

- **Continuous performance** and reduced downtime as no need to relocate dozer traps or screening and slurrying hoppers.

- **More up-time** as the need for extended shift handovers and re-fuelling is decreased since the unit is powered by electric trailing cable and typically fed by an excavator.

- **Reduced operating and resource costs**, with ~30% savings over traditional semi-mobile / relocatable mining and slurrying operations.

- **Haul road maintenance** is avoided as the sand is pumped directly to the concentrator where truck and shovel operations are used to move the ore.

- **Lower capex** as less supporting mobile equipment is required since the run of mine sand processing and slurrying all takes place within a single unit.

- **Lower emissions** from diesel consumption as the unit is powered via an electric trailing cable and less mobile equipment is required to support the operation of the mining unit compared to conventional dry mining methods.

- **Minimised disturbed area** as processing can take place close to the face when the MMU is linked to a *FLEX*SERIES modular plant. This will facilitate an earlier start to rehabilitation.

Features

- Able to process 500 to 600BCMs (bulk cubic meters) per hour of ore. For feed with a bulk density of 1.5t/m^3, this translates to 750tph to 1000tph.

- Mounted on an industry standard track-set including drive motors and an electrically powered hydraulic power pack.

- Remote control via tablet device allows the excavator driver to control and move the unit from within their cab.

- Feed hopper size flexibility - can be designed to be fed by CAT 349F to 390F excavator, or equivalent, models.

- Includes a slurrying system and pump for delivery of ore to downstream processes with instrumentation packages available to record flow and density.

- Includes a shredder unit to crush and shred the ROM to ore sizes suitable for pumping.

- The on-board slurry pumps unit is capable of pumping 900m with 5-10m (nom. 8m) static head.

- Incorporates an on-board air compressor for valve operation and tools as required.

- Full-service warranty available.

- Training & support service plan available.

Optional Add-ons

- Feed grizzly to remove rocks and hard tramp (aka hard pan)
- Booster pumps
- A field screening unit (FSU) serves two main purposes. It's a pre-screen that works in tandem with the unit and functions like a trommel to prepare feed and eliminate oversized material from making its way to the downstream circuit. It also has a sump and pump to serve as a booster to allow the mining area to be further from the mill.

Is the MMU the right solution for your operation?

Our team of experts can discuss your options and relevant performance data with you today....

Media Links

https://im-mining.com/2021/07/13/chemours-deploying-mineral-technologies-mobile-mining-units-trail-ridge-south-mineral-sands-mine/

Video Link

https://youtu.be/07JdIDe3rO4

https://youtu.be/JlAHltNlMtI

Future Innovations

Significant progress has been made towards a future system which would enable remote maintenance scheduling and support via onboard telemetry.... talk to your MT representative if you are interested in learning more in this space.

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JUNE2022.V1