



MOBILE MINING

mtMMU

The future of sustainable pit-to-plant mining: lower emissions, higher recovery, and minimised impact.

How it works

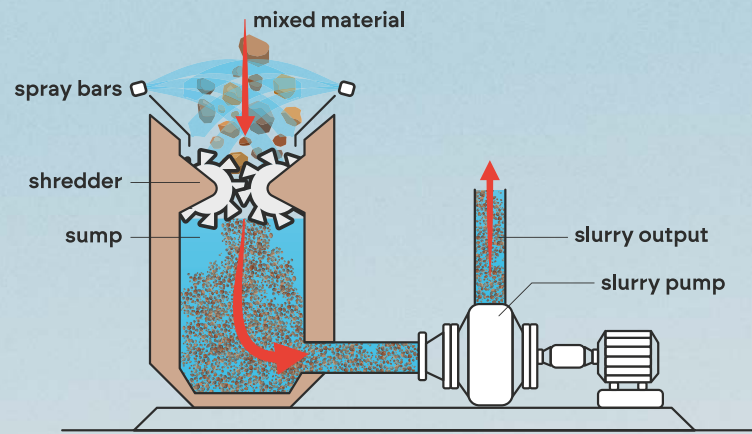


Coarse rocks and roots, we eat them all ...

The MMU solves the problem of breaking and transporting raw feed material from the extraction point to another location.

Made for:

Transporting loose or friable bulk materials



Inside the MMU

For loose or friable bulk materials, the MMU provides a continuous mining and feed preparation solution. Material is crushed, converted to slurry and transported directly to the processing plant. Oversized material passes through a twin-shaft shredder to regulate particle size before entering the sump.

Material is loaded directly into the MMU hopper using standard mining equipment. Oversized material passes through a twin-shaft shredder for particle size regulation before entering the sump, where process water is added to form a pumpable slurry — transferred via pipeline to the downstream processing facility or tailings location.

Technical Features

The Mobile Mining Unit (MMU) is a fully mobile, electrically powered slurry transport solution designed to support efficient material handling in mining operations. It integrates a mobile feed station with on-board comminution and slurry pumping capabilities, providing a streamlined and environmentally conscious approach to material transport.

The primary objective of the MMU is to enhance face advance rates and improve overall operational efficiency by reducing material handling constraints at the mining face. The system produces a slurry product with a nominal top size of 75 mm, which can subsequently be classified downstream using a Field Screening Unit (FSU) or equivalent screening system to achieve the desired particle size specification for further processing.

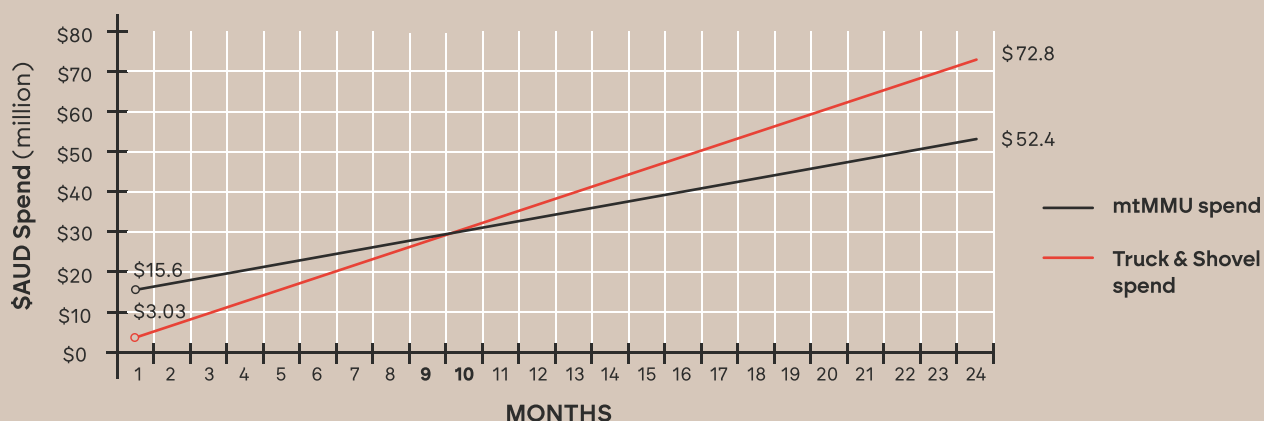
- 500 – 750 tph
- Energy efficient
- Feed particles up to 400 mm
- Remote operability
- Flexible integration
- Pump range up to 900 m with 8 m static head
- Optional booster pump station available to extend range for long distance

MMU vs T&S – Cost Inflection Point (example)

Break even at ~10 months

Ore Tonnes /month: 465,375

Estimated \$AUD / year: \$17,190.97



Mineral sands & rare earth operations

Performs well in friable sands, silts, clays, and soft overburden where haulage is challenging. Enables high-throughput mining where water balance, permitting, or pond development limits dredging.

- Replace Truck and Shovel
- Replace Dredging



Tailings relocation or reprocessing operations

Supports sustainable recovery from legacy tailings with reduced surface disturbance.

- High altitude capability
- Low ground bearing pressure



Increased Productivity

Supports faster face advancement and continuous feed delivery to the processing plant.



Lower Operating Costs

Reduces reliance on diesel-powered haulage fleets and associated infrastructure.



Reduced Environmental Footprint

Electric operation helps minimise emissions, noise, dust, and site disturbance.

Benefits

mtMMU Configurations

Mineral Technologies offers modular Mobile Mining Units across a wide range of capacities and applications.



Dimensions

Height	10 m	Weight (Dry)	146 Tonnes
Length	17 m	Weight (Sanded)	185 Tonnes
Width	10 m	Ground pressure (Dry)	95 kPa
		Ground pressure (Sanded)	120 kPa

Specifications

INPUT		OUTPUT	
Nominal dry feed rate	750 tph	Pulp density	35 – 45 %
Max feed lump size	400 mm	w/w Slurry pumping distance	900 m + 8 m static lift
Process water requirement	<1600 m ³ /h	TDHW	up to 70 m
Process water pressure	150 – 180 kPa	Feed bypass appature	208 x 70 mm
Typical process water line size	DN300	Typical slurry line size	DN350
Installed motor power	830 – 870 KW		

MACHINERY

Slurry pump motor power	610 KW
HPU motor power	2 x 110/130 KW
Tramming speed	1 Km/h
Slurry pump size	14 x 12 – 4 VC

INCLUSIONS

- Slurry pump motor VSD
- Full onboard MCC & switch room
- Hydraulic power unit (HPU)
- Air compressor
- Shredder
- Track set
- Gland water pump



**We start with
the mineral** not the equipment.

FACT: No two ore bodies behave the same. That's why one-size-fits-all solutions rarely deliver the best recovery.

Let us help you discover your ore body's Mineral DNA, and whether MMU is the right technology to recover more of what matters.

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