



**SINCE 1966** 

## Introduction

Operating since 1966 our experience in providing material handling and rail products and solutions has given us the knowledge to provide support and knowhow to satisfy our customers.

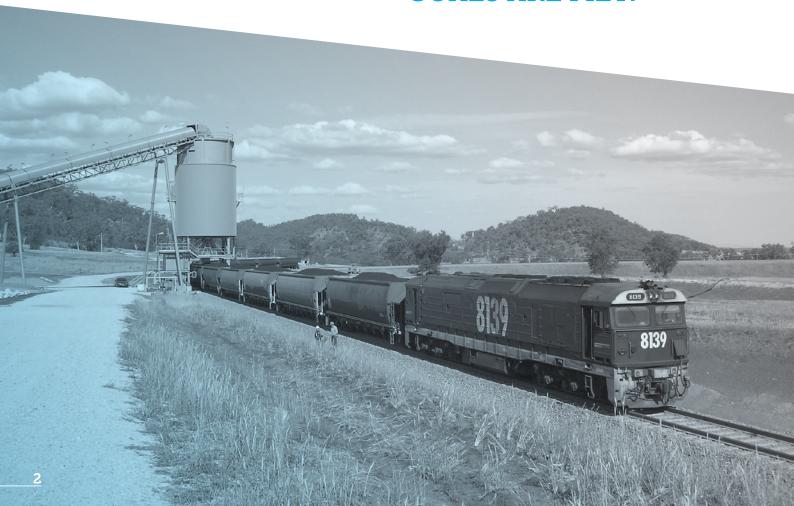
HMA Materials Handling is part of the HMA Group and specialises in the design, supply, installation and servicing of material handling and rail equipment in a wide variety of industries.

We are recognised for our innovation and adaptability, working with our customers to come up with a design solution that meet our customer's needs and then deliver a built product or system.

We also represent principals who are among the leaders in their fields including Mogensen UK, Carman, Conn-Weld and Cascade Coil and combine this with our own in-house engineering, drafting and project management resources enable us to provide an optimum material handling and rail solution to fit our customers' needs.

Our network of sales and support offices means you are never far away from a HMA representative who can assist you with any of your needs for new or existing equipment. Whether it is the supply of a single screen or rail trolley through to a multi element turnkey project, HMA Materials Handling has the experience and resources to ensure our customers' goals are met.

HMA MATERIALS
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## **Industries**

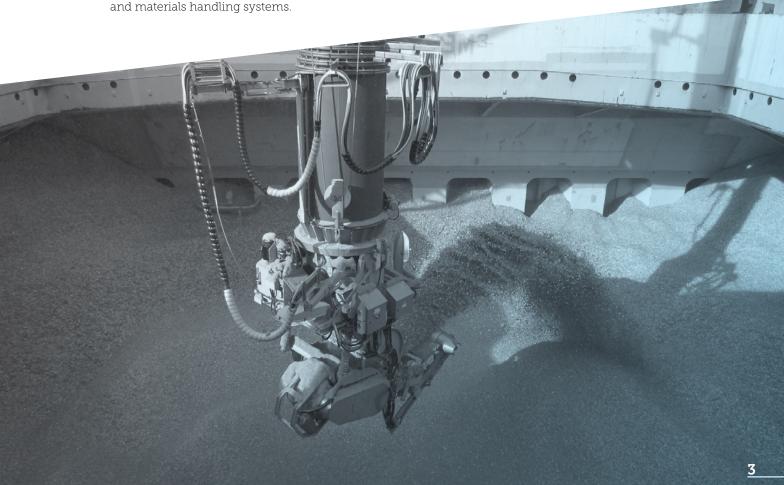
HMA Materials Handling has provided solutions in a wide range of Industries including:

- MINING
- PORTS
- AGRICULTURE
- RAILWAYS
- SERVICE PROVIDERS

# Why do business with HMA Materials Handling?

engineering problems in an innovative way to provide solutions that work. As a customer you are always in a close working relationship with senior HMA engineers and project managers who use an open and hands on approach to all work. We offer a multi disciplinary engineering design team with extensive experience in rail maintenance equipment and materials handling systems.





# Material Loading Systems

#### **Precision Loading Systems**

HMA Materials Handling holds the patent for the Precision Loading System (PLS) in the Australasian region. The PLS uses a single or multi batch approach to the loading of bulk materials in both trains and trucks, weighing the material before it is placed into the wagon ensuring that each load is maximised for improved efficiency.



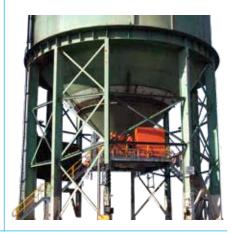
#### System Upgrades

We are able to provide solutions to improve the operation of existing loading facilities. Examples of what can be done to improve throughput and/or reliability include:

- Replacement control gates and chutes
- Improved hydraulic power systems
- Loading automation
- Real time weight loading (VTLU)



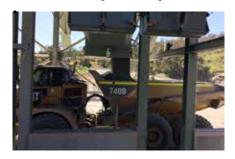




#### Truck and Train Loading Systems

Materials such as coal, iron ore, gravel and sand can all be loaded in bulk using our variety of design and operating systems. Loading systems are available to suit applications involving trucks (including oversized and multiple trailers) as well as trains with options including:

- Flood (Volumetric) Loading
- Single or Multiple Batch Weighed Loading
- Automatic or manual operation
- Real time weight loading (VTLU)





# Chutes, Gates & Slingers

#### Ontrak/HMA Feeder Breakers

Feeder breakers in capacities from 500 to 2,500 tph for a range of materials including coal and aggregates. Options for either electric or hydraulic drives with standard designs or designs specific for an application.



#### Loading, Isolation & Flow Control Gates

We have a range of gate designs to suit a variety of applications such rejects systems, equipment isolation and material flow control or we can design a gate and actuation system to suit a particular need.

- Single, double or multi blade gates
- Clamshells
- Water capture designs





#### In Pit Crushing

Static or mobile In Pit Crushing systems designed to suit your specific needs and able to process up to 1000 tph.



#### Ship /Barge Loading Systems

We have a range of Jet Slingers,

Loading Spouts and round telescopic chutes for accessing and loading the holds of ships or barges. The various units were supplied for loading a range of materials including grain, sugar, coal, wood chip and mineral sands.







#### Mobile Equipment

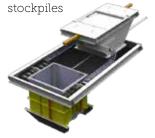
We can supply tracked vehicles such as feeders, conveyors, stackers and reclaimers or work and carry platforms.

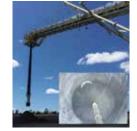


#### Chutes - Telescopic / Transfer / Traversing

From simple in line chutes through to complex transfer tower design, our designs are based around promoting the natural angle of movement of material. All designs feature a full range choice of wear resistant liner options available through HMA Wear Solutions.

Telescopic loading chutes which enable complete flexibility for accessing and loading the holds of ships/barges and for dust control and environmental management on product



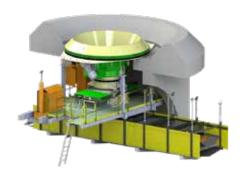




# Stockpile Reclaim & Conveying

#### Drawdown Hopper

Our range of Carman Drawdown Hopper eliminates outdoor stockpile storage and reclaim problems including coring, bridging, and minimal active reclaim by using vibratory action to transmit energy directly into the stockpile, encouraging sloughing into the flow stream and maximizing active reclaim.





#### carman

#### Belt Feeders

We can supply Belt Feeders up to 2500 mm wide to suit most bulk materials. Low head designs to suit tight spaces with options for drive types and feed conditions.



#### Chain Feeder / Reclaimer

Chain Feeders for the reclaim of material from stockpiles or fed via trucks/front end loaders to efficiently move material. Standard sizes with capacities from 500 to 2,500 tph with options for electric or hydraulic drive.



ONTRAK MATERIALS HANDLING

#### Stackers

Range of standard and non-standard stackers including features such as luffing, slewing, and telescoping.





#### Trippers & Ploughs

We have designs for travelling trippers and belt ploughs to suit a variety of material types and belt configurations or can design a system to suit a particular need.



#### Jet Slingers

Proven solution for stockpiling and ship loading applicationswhere slinging of materials is required to increase stockpile size and minimise movement when loading ships. Our Slingers have been used successfully on the following bulk material:

- Coal washed and raw (Capacity up to 3000 tph)
- Woodchips hardwood and soft wood (Capacity up to 1500 tph)
- Grains Wheat, barley, Maize (Capacity up to 1000 tph)
- Sugar (Capacity up to 3000 tph)
- Mineral sands ilmenite etc (Capacity up to 1000 tph)

The 3 size options are -

- Junior 0-200tph
- Medium 200-1000tph
- Large >1000tph







# Process Equipment



#### Mogensen Vibratory Equipment

HMA are partnered with Mogensen UK to locally manufacture Mogensen vibratory equipment under license for the Australasian market.

This includes, multi deck heated/non-heated sizers to suit various feed rates, Automatic mesh cleaning systems, central/transverse feeders to allow even distribution of material over a sizer or screen, Single/double deck screens and many more to suit various industries and material types.

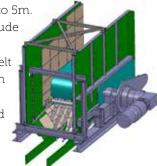




#### Divergators

Patented high capacity non-binding and self-cleaning static grizzly.
Contains no moving parts and the individual bars are easily replaceable.
Sized to suit most applications for separation above 20 mm in widths

from 0.5 to 5m. Uses include crusher bypass, belt protection and misplaced material removal.



#### Vibratory Equipment

Equipment such as Bin Dischargers, Feeders, Grizzlies, Fluid Bed Processors and conveyors can be engineered to suit each individual application from the world renowned Carman and Mogensen brands.







# Rail Monitoring Systems



#### Massize In-Motion Weighing Solutions

- High-speed, automated operation
- Trade Metrology-grade accuracy
- Models for speeds up to 60km/hr
- Retrofit technology for existing tracks
- Scalable for increased accuracy
- Quick, non-disruptive installation

#### T-Series Weighbridges:

- · Microprocessor-based, stable, automated
- Various output options: reports, printouts
- Communication: Ethernet, 4G/5G, serial
- Direct process integration via MODBUS/TCP







#### Data Insights:

- Gross Mass, Mass distribution (Front/Rear, Left/Right), axle and wheels.
- Automatic Tare and Net mass calculation.
- Vehicle detail through RFID Tag), speed, identification.
- Remote configurable

#### **Alarming Functionality**

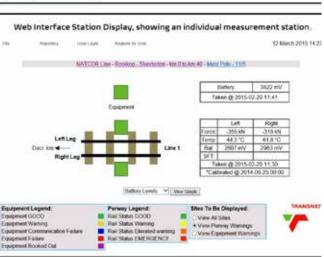
- Configurable alarms for all anomalies, such as overweight tare, bogie & net masses, front/rear & left/ right bias.
- Email and SMS configurable.
- Instant Notification

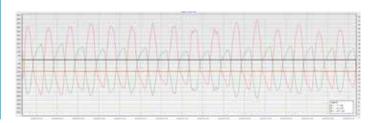
#### **CWRM Longitudinal Stress Monitor**

A track-mounted network system designed to manage track forces in continuously welded rails. It provides real-time monitoring of track forces and temperatures, helping to prevent rail breaks and buckling. The wireless setup includes a Mast Processor and up to four Track Nodes per measurement node, with wireless data transmission via 4G/5G or a license-free CWRM High Site.

Measured data is accessible through a Web Interface, Scheduled Reporting, and a Trending Application for detailed analysis. The system offers diagnostic plots for maintenance staff, while retrofitting the rail monitoring sensors requires no rail cutting or sleeper modification, ensuring operational continuity. The self-powering Mast Processor uses solar panels and lithium batteries, while the Track Nodes utilize primary cells for extended operational life.







# **Engineered Product**





#### HMAVR - High-Precision Train Speed Monitoring:

The HMAVR is a versatile multidirectional doppler radar system with an impressive accuracy of ±0.5%. This system tracks real-time train speeds in both incoming and outgoing directions on single-line tracks. Can be mounted on either side of the track and offers speed data output via local PC or direct PLC connection using MODBUS/TCP or '4-20mA' analog output.





A standard configuration suits train loading tasks, accommodating speeds from 0.3km/h to 16km/h. Seamless communication via local ethernet connection and user-friendly PC software enables system configuration, monitoring, troubleshooting, and historical data analysis for up to the last 5 trains. Additionally, the software offers instant diagnostics and displays real-time detected speeds, enhancing operational control and efficiency.

### Remote Configurable DED (Dragging Equipment Detector):

- Actively detects and alerts about dragged objects by trains.
- Energy-sensing sensors on stationary impact plates trigger alarms based on impact energy.
- Configurable alerts cater to varying impact severity.

#### **Enhanced Detection:**

- Impact plates and wheel sensors pinpoint object locations.
- Identify impacted axles, aiding locomotive and wagon recognition.

#### **Tailored Safety Alerts:**

- Analogue impact sensors offer remote configurability.
- Three alert levels for specific responses.

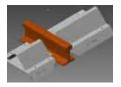
#### Effortless Setup:

- 8-hour installation for double-line sites.
- No track or sleeper modifications required.
- Suitable for straight, level tracks.
- Power options: 110V/240V AC, 12/24V DC.

#### Alarming Features:

- Customizable alarms for anomalies.
- Email and SMS alerts.
- Instant notifications for prompt action.











## Dyna-WIM (Wheel Impact, Skew Bogie, Weigh In Motion):

Advanced railway monitoring, detecting wheel impacts, skew bogies, lateral forces, and improper loading. In-motion weighbridge for precise mass data at speeds up to 160 km/hr.

- Seamless integration to existing tracks, no rail cutting or sleeper replacement. Swift installation during train schedules.
- Versatile: impact detection, lateral load measurement in one. RFID support for efficient vehicle recognition.
- Automated: data collection, reporting, alerts. Efficient, solar power adaptable.
- Covers critical alerts: wheel impact force, lateral forces, skew-tracking bogies. Real-time and post-process reporting.
- Efficient communication via Ethernet, GSM, RS232 Serial.

# Rail Monitoring Systems

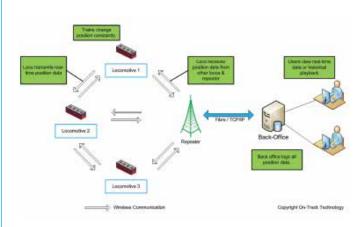


# Dynatrack FCAS (Fleet Monitoring and Collision Avoidance System)

Introducing Dynatrack - Rail Safety Solution:
Dynatrack enhances rail safety, actively preventing
collisions and monitoring speeds. It assesses speed,
location, and direction with drivers, providing timely
warnings and hazard actions. Shared position data
adds safety, ensuring distance and speed compliance.
Train Controllers gain real-time insights via the Central
Monitoring System, maintaining safety protocols and
intervening remotely. Features include track-aware
GPS-based collision avoidance, automatic speed
adherence, live train control, and individual driver logins.
Discover Dynatrack for elevated rail safety and efficiency,
minimizing risks.



#### How it Works









### Cascade Coil Safety/Security, Blast Mitigation, Drapery and Zoological Screens

#### CASCADE Safety & Security

GuardianCoil provides protection for various machinery types, guarding against high-velocity debris. It shields against shrapnel, shattered cutters, and metal shards, ensuring operator safety while allowing clear equipment views. Installing GuardianCoil offers easy access to machines. Its black mesh enhances focus on the operation



point. GuardianCoil wraps around flying debris upon contact, preventing flying hazards from exiting the area. Key features include injury prevention, strength, energy absorption, fireproof design, visibility, versatility, and accessibility for maintenance and operation. GuardianCoil enhances safety and productivity.

#### Cascade Fabricoil Blast Protection

Guardian Grade Fabricoil offers advanced Dynamic Blast Protection for critical structures like government buildings, airports, and embassies. Its engineered material



flexes predictably during blasts, absorbing forces and diverting energy away from occupants and structures. The flexible, resilient interwoven coils form a three-dimensional spring, dispersing energy like ripples in water. It safeguards against human injuries, blast-driven debris, and storm-driven projectiles. Covert in appearance, it maintains situational awareness and enhances interior spaces. With high strength, energy absorption, and fireproof properties, it's versatile, cost-effective, and suitable for various applications. Guardian Grade Fabricoil ensures protection, durability, and employee well-being, backed by a 25-year limited lifetime warranty.

#### Cascade Architectural (Interior & Exterior)

Cascade Architectural is your source for transformative architectural materials.
Crafted in the USA, Fabricoil® and
GuardianCoil® systems are innovatively designed from coiled wire strands, offering flexible metal fabric. Our engineered attachments enable limitless solutions for pioneering designs.
Fabricoil excels in interior/exterior applications like cladding, solar shading, and more.



#### Cascade Shower Curtain

Experience elegance and sustainability in shower spaces with Serenity dividers. The woven coils' luster adds a luxurious touch, offering low-maintenance beauty. Enjoy the warmth as steam heats the coils, creating a serene environment. These dividers allow filtered light, enhancing openness. 100% recyclable, odorless, lightweight, and resistant to



fading, rust, or mildew. Easy installation, compatible with various hardware. Standard 72" x 72" size fits most showers. Custom options available. Elevate your shower with Serenity dividers, where tranquility meets style.

#### Cascade Phantom Mesh

Phantom Mesh offers near-invisible aviary screening for ultimate protection. Appearing nearly invisible from 12m, it combines visual appeal, light weight, and durability. Custom-made without size limits, it's easy to install and



resistant to predators and vandalism. From a distance, it virtually disappears, creating an open, outdoor feeling. Phantom Mesh fosters a natural environment for wildlife, providing protection from predators. Manufactured by interlinking round weave wire coils, it comes in various diameters and materials. Cascade Coil Drapery offers standard and premium options, making it perfect for unique spaces. Enjoy unobstructed views and safety with Phantom Mesh.

#### **Cascade Security Systems**

Efficiently meet semi-security needs in new or retrofit construction with interwoven wire coils. Exceptional strength and contemporary style offer security without compromising aesthetics.

Stainless steel, aluminum, and nylon-coated galvanized steel in various weave sizes provide versatility. Cascade Coil



is a popular choice, utilized globally for partitioning, decorating, and securing spaces. The open weave maintains visibility while enhancing security. It's ideal for areas like restaurants, retail spaces, and hazardous material storage. Customizable options cater to diverse applications, offering fireproof, lightweight partitions that allow airflow, acoustics, and visibility. Cascade Coil Drapery® enhances security with style and practicality.

# Mineral Processing Solutions



#### Mineral Processing Solutions

For aggregates, mining, and recycling industries.

Minerals are an indispensable part of our lives. Yet as everything else they are finite. We need to make best use of them. Keep the waste at a minimum while keeping operating expenses at the minimum. MEKA invest heavily in R&D to provide safer, better and profitable solutions.

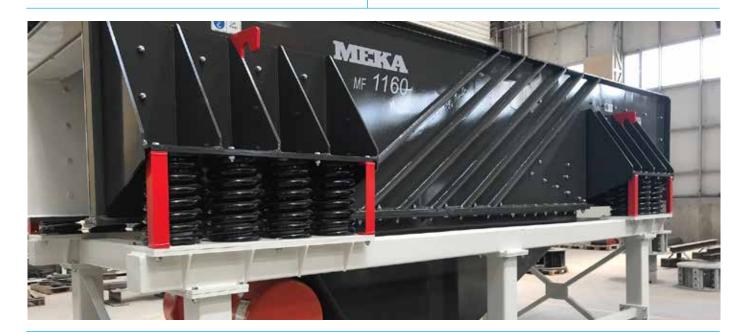
HMA  $\theta$  MEKA provide complete solutions for aggregate producers, recycling plant operators, industrial mineral processing plants and various mines.

MEKA's process engineers prepare a simulation of the crushing and screening plant to present outcomes of different plant flows and equipment selections. Chutes, walkways, transfer points, make a significant difference

during the operation. MEKA's plant engineers carefully craft all these details to give you the most efficient plant. The product line is continually improved to keep up and lead the constantly developing technological advancements.

#### **MEKA Mineral Processing Solutions**

- Heavy duty feeding systems for Mines
- Crushers for Hard Minerals
- Impactor Series
- Sand Machines
- · Solutions to remove clay from rock and sand
- Horizontal and Incline Screens
- Wet processing solutions
- Mobile solutions

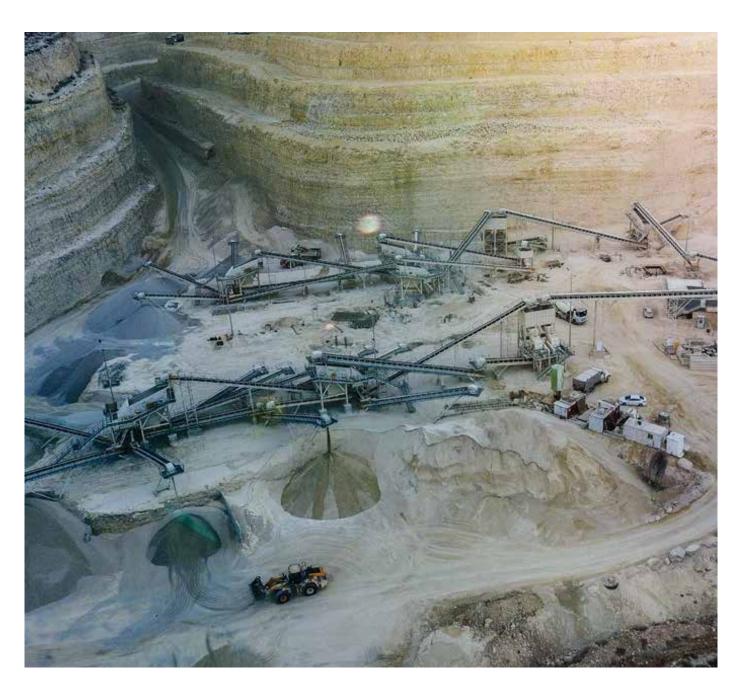








# Mineral Processing Solutions



### **EQUIPMENT**

### **APPLICATIONS**

Feeders	Aggregate Crushing
Crushers	Sand and Gravel Applications
Screens	Manufactured Sand
Washers	Demolition Waste Recycling
Portable Units	Ore Processing

# Concrete Batching Plants



#### **Concrete Batching Plants**

For ready-mix concrete, construction, and precast industries.

Concrete Batching Plants are used for manufacturing of high-quality concrete for a variety of construction applications, such as buildings, roads, bridges and airports. MEKA offers a wide range of Ready-Mix Concrete Batching Plants and concrete mixers. Mobile, Compact and Stationary Concrete batching plants can be configured as special solutions for different kinds of concrete, including Roller Compacted Concrete, Road Concrete, Extra Heavy Concrete, Fiber-Reinforced Concrete, etc., according to the customers' specific requirements.

MEKA's Single Shaft, Twin Shaft and Planetary Concrete Mixers cover a wide range of needs and add flexibility to the manufacturing process.

HMA  $\theta$  MEKA also offers different components and options for the concrete sector that increase performance, add flexibility, improve accountability and enhance operational characteristics.

#### MEKA Concrete Batching Plants

- Stationary Concrete Batching Plants
- Mobile Concrete Batching Plants
- Compact Concrete Batching Plants
- Job-Site Concrete Batching Plants
- Special Concrete Batching Plants (RCC, Precast etc.)
- Concrete Mixers
- Fiber Dosing Systems
- Plant Automation
- Other Solutions





# Concrete Batching Plants









COMPACT CONCRETE PLANTS

MOBILE CONCRETE PLANTS

STATIONARY CONCRETE PLANTS

CONCRETE
PLANTS
COMPONENTS

COMPACT C 30 MOBILE M 60 STATIONARY K 60 FIBER DOSING SYSTEM

COMPACT C 60 MOBILE M 100 STATIONARY K 110 CONCRETE RECYCLING SYSTEM

COMPACT C 100 MOBILE M 120 STATIONARY K 140 AUTOMATION SOLUTIONS

COMPACT C 120 STATIONARY 160 W

STATIONARY 200 W

**JOB-SITE** 

CONCRETE PLANTS

JOB-SITE S 30 SPECIAL

CONCRETE PLANTS

PRECAST P

> RCC RCC

**CONCRETE** 

**MIXERS** 

SINGLE S

TWIN T

PLANETARY P



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#### **HMA GROUP**

MATERIALS HANDLING
INSTRUMENTATION

WEAR SOLUTIONS
POWER GENERATION

FLOW & INDUSTRIAL
GEOTECHNICAL

AUSTRALIA - NEW ZEALAND - INDONESIA - SOUTH AFRICA