



// ONE BRAND // ONE SOURCE // ONE SYSTEM



Industrial Solutions  
Mining



## COAL

### Sustainable solutions for the coal industry

Every industry is different, as is every plant. The processing of raw materials, minerals and ores requires plant machinery and equipment to be operating efficiently at all times. REMA TIP TOP Industrial Solutions gives coal mine operators a complete range of conveyor belting and components, wear protection and surface protection solutions tailored to the specific needs of your plant.



# Mining



Coal



Copper



Gold



Iron Ore



Lithium

## COAL

For a very long time, the coal industry has been a critical player in the development of industries, energy generation and innovation for the future.

Some of the key challenges in a shifting economic, political and social environment centre around the sustainability and maintainability of coal plants and equipment, and in technology-based improvements that drive efficiencies.

One of REMA TIP TOP's core global values is the mantra of 'repair, don't replace', which speaks to our approach in delivering products and services that improves the lifecycle and availability of our customers' assets.

Our range of conveyor maintenance products, services, technologies and analytics tools increase the efficiency and availability of our customers' systems, while our wear and corrosion protection systems protect our customers' plant and keep machinery running far longer than its normal lifecycle.

Specialised products like REMA dust covering systems also improve the environmental outcomes for our customers, and OTR tyre patches and servicing reduces your reliance on new tyres and keeps your vehicles on the road longer.



Minerals

## YOUR REMA TIP TOP PRODUCTS & SERVICES PORTFOLIO



Belting



Pulley Lagging



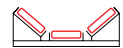
Impact Bed/Bars



REMA Technology & Monitoring



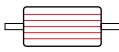
Wear Rubber Linings



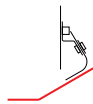
Idlers, Rollers & Trackers



Bearings\*



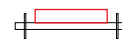
Pulleys



Skirting Systems



Safety Equipment\*



Belt Cleaning Systems



Ceramics



Adhesives



Heavy Wear Protection



Rubber Steel Plates



Anti-Caking



24/7 Service



Engineering



Tools Repair System



Fluoro-polymer Linings



Coatings



Corrosion Rubber Linings



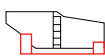
Brick Linings



Combined Linings



Mill Lining

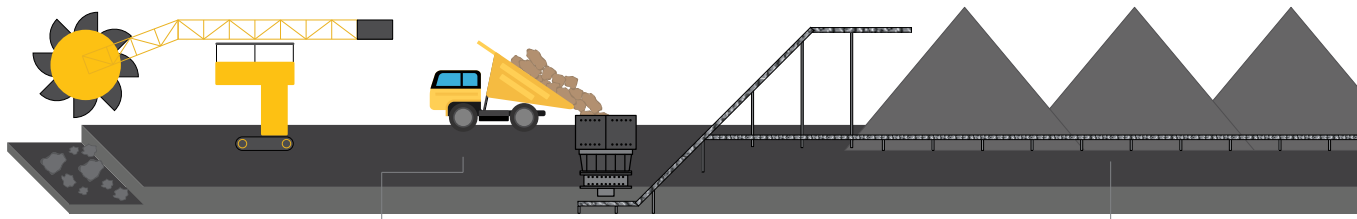


Screening Mats



Vulcanisation Presses

\*Please contact your local REMA TIP TOP representative for availability



**1 TYRES**

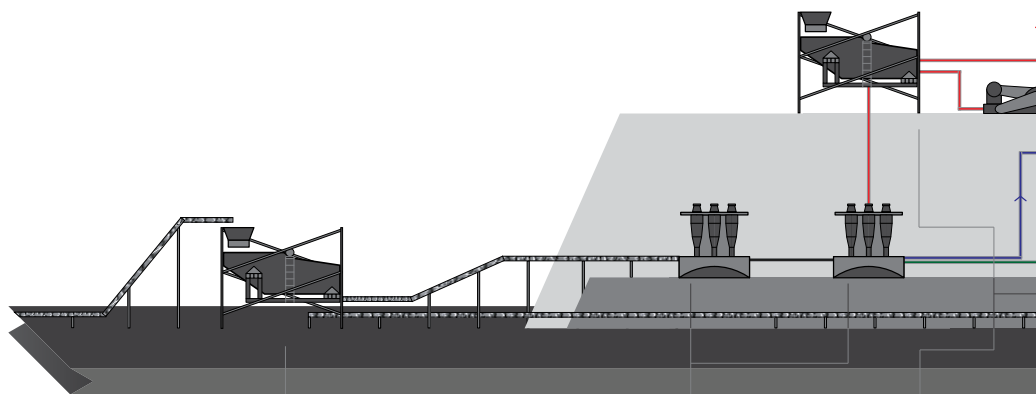
- TYRE REPAIR
- EMERGENCY SEALING
  - SEALASTIC
- PREVENTIVE SEALING
  - TT-SEAL XXL
- PERMANENT REPAIR
  - RADIAL PATCH RAD100 SERIES
  - CEMENT OTR

**ROM PRIMARY SIZE CRUSHER 1**

- WEAR PROTECTION
- CERAMICS
  - REMALOX
  - REMALOX HD
- RUBBER LINING
  - REMALINE
  - PERFORMANCE LINE
- POLYURETHAN
  - REMATHAN

**CONVEYOR 1**

- CONVEYING SOLUTIONS
- PULLEY LAGGING
  - REMAGRIP
- SKIRTING RUBBER
  - REMASKIRT
- FEEDING SYSTEM
  - REMASLIDE BARS
  - IMPACT BEDS
- ANTI CAKING
  - REMATHAN



**2 SECONDARY CRUSHER SCREEN**

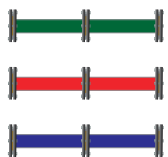
- WEAR PROTECTION
- RUBBER LINING
  - REMALINE
  - PERFORMANCE LINE
- POLYURETHAN
  - REMACOAT
- SCREENING
  - REMASCREEN

**3 DENSE MEDIUM CYCLONES**

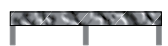
- WEAR PROTECTION
- RUBBER LINING
  - REMALINE
  - PERFORMANCE LINE
- POLYURETHAN
  - REMACOAT
- CERAMICS
  - DIRECT BOND TILES

**DRAIN & RIN**

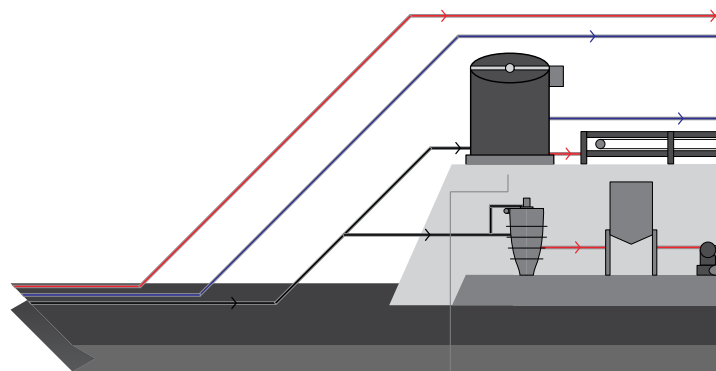
- WEAR PROTE
- RUBBER LININ
  - REMALINE
  - PERFORMANCE
- POLYURETHAN
  - REMACOAT
- CERAMICS
  - DIRECT BOND



PIPING



CONVEYOR SYSTEM

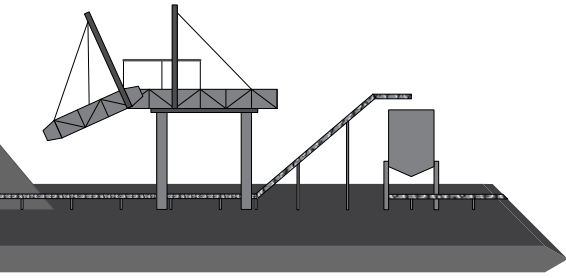


**3 FLOATATION CELLS**

- WEAR PROTECTION
- RUBBER LINING
  - REMALINE
  - PERFORMANCE LINE
- POLYURETHAN
  - REMACOAT
- CORROSION PROTECTION
- RUBBER LINING
  - CHEMOLINE

**4**

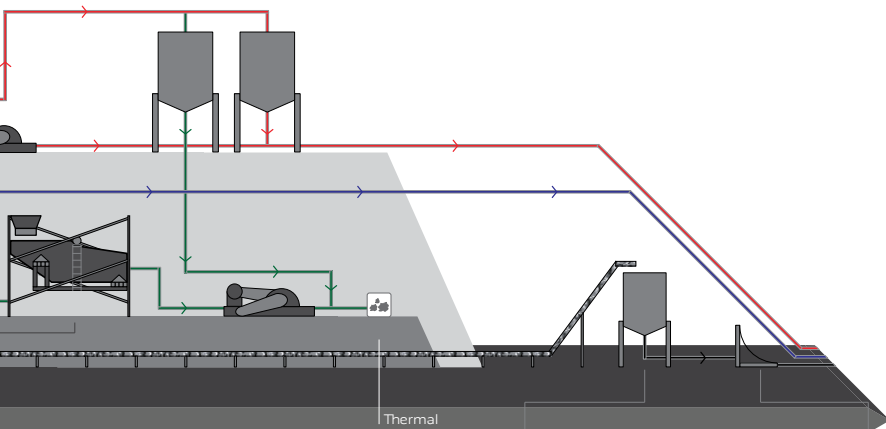
- W
- P
- CORROS



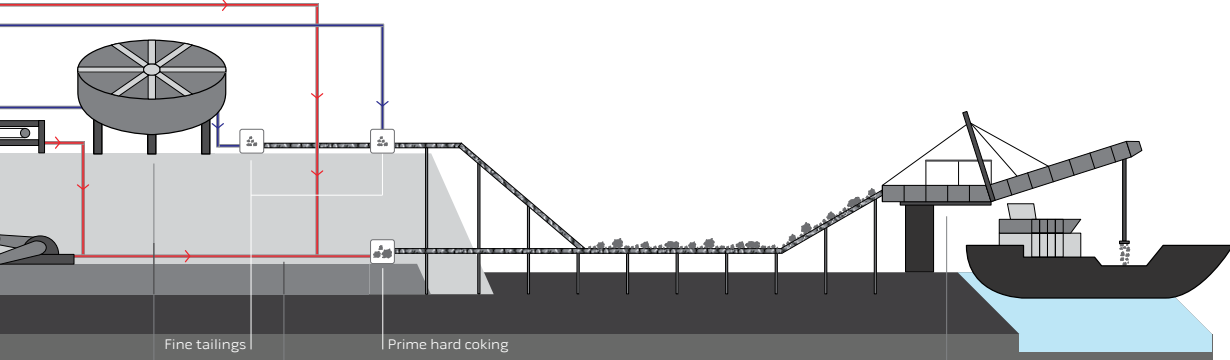
# Coal Process

- 1 PRODUCTION FEED  
PRODUCTS & SOLUTIONS
- 2 PRE-TREATMENT  
PRODUCTS & SOLUTIONS
- 3 CLEANING  
PRODUCTS & SOLUTIONS
- 4 SUBSEQUENT TREATMENT  
PRODUCTS & SOLUTIONS
- 5 SHIP LOADING  
PRODUCTS & SOLUTIONS

- BELTING**
- STEEL CORD
  - FABRIC
  - SOLID WOVEN
- TECHNOLOGIES**
- REMA MCUBE
- BELT THICKNESS MONITORING
  - SCS STEEL CORD SCANNER
  - RIP GUARD DETECTION
- COMPONENTS**
- IDLERS
  - ROLLERS
  - TRACKERS
  - CLEANERS



- 4** CLASSIFYING SCREENS
- 2** CYCLONE
- 2** CLASSIFYING SIEVE BEND
- WEAR PROTECTION**
- RUBBER LINING
- REMALINE
  - PERFORMANCE LINE
- POLYURETHAN
- REMACOAT
- CERAMICS
- REMALOX
  - DIRECT BOND TILES



- 3** THICKENERS
- 3** PIPING
- 5** SHIP LOADER
- WEAR PROTECTION**
- RUBBER LINING
- REMALINE
  - PERFORMANCE LINE
- MINERAL PROCESSING
- DUNLOP HOSES
- WEAR PROTECTION**
- CERAMICS
- REMALOX
  - REMALOX HD



# Mining



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Iron Ore



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## CASE STUDIES

### REMALOX HD 35

Reducing wear and extending lifetime of discharge chutes

At a coal terminal in China, a discharge chute was experiencing a high degree of abrasion and wear.

2month

Previous lining: Steel

18month

Lifetime with REMALOX HD 35

x9

Increase in lifetime

It was previously 20mm steel-lined, and was subject to a service life of approximately 2 months. The chute was relined with REMALOX HD 35 – a steel-backed rubber and ceramic composite, which extended the service life of the transfer chute to over 18 months.

### UNIGRIP CR-L

Reducing slippage and increasing service life

A coal handling prep plant in China was experiencing slippage on one of its main transfer belts, causing downtime and reduced throughput.

2years

Ongoing service life



Perfect for wet conditions



Long service life

The solution was the installation of UNIGRIP CR-L, a pulley lagging material with ceramic inserts. Perfect for wet conditions, UNIGRIP has a higher coefficient of friction and a very long service life.

This pulley remains in service more than two years later.



Minerals

## INNOVATIVE PRODUCT SOLUTIONS

Low noise rollers

Following a successful trial of low-noise rollers, REMA TIP TOP changed out 4,500 rollers for an Australian coal mining customer.

4500

Low noise rollers installed

75%

Reduction in noise

The initial trial was undertaken in September 2016 after proactive noise testing found improvements were needed to meet community and environmental expectations. Independent testing found that the change out reduced roller noise by 75 per cent. Our unique condition monitoring techniques continue to be utilised on site to monitor roller performance and proactively implement maintenance strategies.

## MAINTENANCE EXPERTISE PAYS DIVIDENDS

Reducing cost, increasing availability

In January 2015, a coal mining client in Queensland, Australia approached us about its conveyor availability issues.



Reliability engineering approach

98%

Conveyor availability

41%

Reduction in maintenance costs

REMA TIP TOP implemented a reliability engineering approach to track and analyse the data of all aspects of the conveyor components.

In taking up our data-driven recommendations we have been able to improve the conveyor availability to 98 per cent, and reduce maintenance costs by more than 40 per cent.



# Driving your Performance

## OUR SERVICE PROMISE

The REMA TIP TOP group of products are specifically designed with your plant and assets in mind. From wear and surface protection to conveyor technology and components, our products paired with our service solutions warranty to dramatically increase the lifecycle of your assets, lower your maintenance costs and improve the availability of your system.

For decades we have been working on-site with our customers and partners in the development of industry best practice installation, maintenance, and upkeep strategies to optimise your site beyond the benchmarks of your competitors. From developing methodologies and undertaking engineering audits, to implementing data collection technologies and tapping into The Internet of Things, we have the know-how and experience to keep you up and running longer, safer, and more efficiently.



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