

PLATE BLOCK + WEAR



Tough mining products. Total wear solutions.

Stand up to the toughest conditions with CQMS Razer's complete range of Plate, Block and Wear products for mining and fixed plant applications and markets around the world.



All round resistance: PACplate®

CQMS Razer's own PACplate® is a chromium carbide clad wear plate designed to perform in high impact and abrasion areas of material handling. PACplate® is available in two grades covering a range of impact and abrasive applications.



Extreme protection: DOMITE®

Proudly developed by CQMS Razer in 1971, this high-impact and abrasion-resistant material is a high chrome moly white cast iron, metallurgically bonded to a mild steel backing plate. DOMITE® is available in more than 4,500 shapes and sizes, including custom designs to suit your application.



Low to moderate impact: Razer Tile®

Lightweight and durable, CQMS RazerTile® and RazerTile® Longlife consists of high-density, high-abrasion-resistant ceramic tiles or ceramic blocks embedded into rubber or polyurethane for low to moderate impact and highly abrasive sliding applications. Ceramics are a flexible, reliable solution reducing handling weight, improving safety and supporting easy installation.



PROVEN IN THE FIELD



Success stories using Plate Block and Wear packages designs and layouts

RazerTile® polyceramic liner used for bulk handling of iron ore in a ship loader



1

PACplate® liner in an iron ore dump truck to minimise wear from sliding abrasion



3

Domite® chockie bars providing wear protection for a bucket in an iron ore mine



2

QT plate liners providing abrasion protection for an apron feeder loading 'overburden' into a crusher



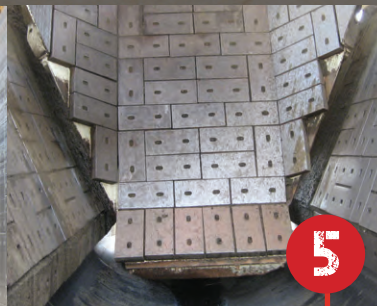
4

Domite® chockie bars providing wear protection for a bucket in an iron ore mine



6

Domite® protection for a spoon chute



5

We deliver reliable, high – Wear solutions backed up by the CQMS Razer service + support promise. It's what Stands us apart. We're here to help.

To find out more about our complete Plate, Block and Wear range, including our Custom design and fabrication Services, talk to one of our support representatives today.

CQMS Razer is a global leader in advanced abrasion resistance. Specialists in tailored wear packages, we will advise the best mix of product and services to suit your specific application and operating condition.

RESIST ABRASION + WEAR

FULL RANGE OF SERVICES

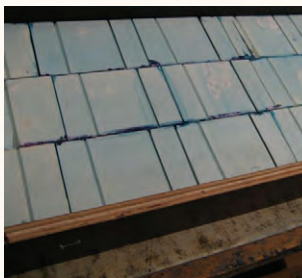
CQMS Razers extensive experience delivers the highest level of technical service and support including:

- Application advice
- Modelling and design of wear product packages
- 3D modelling
- Flow simulation
- Technical product services
- Monitoring and maintenance services, including the Razer C.M.P Chute Management Program
- Fully fabricated structures, such as pipes, screens, chutes, hoppers and bins
- Custom design manufacturing for all products

Backed up by large in house and global manufacturing facilities, we have the production capacity and technical capabilities to manage all of your design and production needs.

**WORKING WITH YOU
TO EXTEND THE
LIFECYCLE OF YOUR
MOST CRITICAL
ASSETS AND WEAR
PARTS**

PRODUCTS



PACplate®

- PACplate® sheets
- PACplate® fabrications
- PACpipe

DOMITE®

- Chocky bars
- Wear buttons + donuts
- Wafer strips + tiles
- Skid bars
- Grizzly bar caps
- Hammertips for shredder + grinder
- Cane knife edges
- Wear bars + wear plates
- Microledges + star plates

CUSTOM

- Nihard
- White iron
- High manganese castings
- Rubbadex®
- REMAR®

CERAMICS

RazerTile®

- Polyceramic liners
- Ceramic on rubber liners
- Ceramic tiles
- Adhesives

All our products are developed to the highest safety and durability standards and are backed up with fast delivery and down to earth service.

CUSTOM DESIGN + FABRICATION

Our complete range of standard and custom Plate, Block and Wear products support multiple industries including the fixed plant and mining sectors. And you can count on the highest level of service and support—from design, fabrication and manufacturing services to wear audits, inspections and training.

FEATURES + BENEFITS

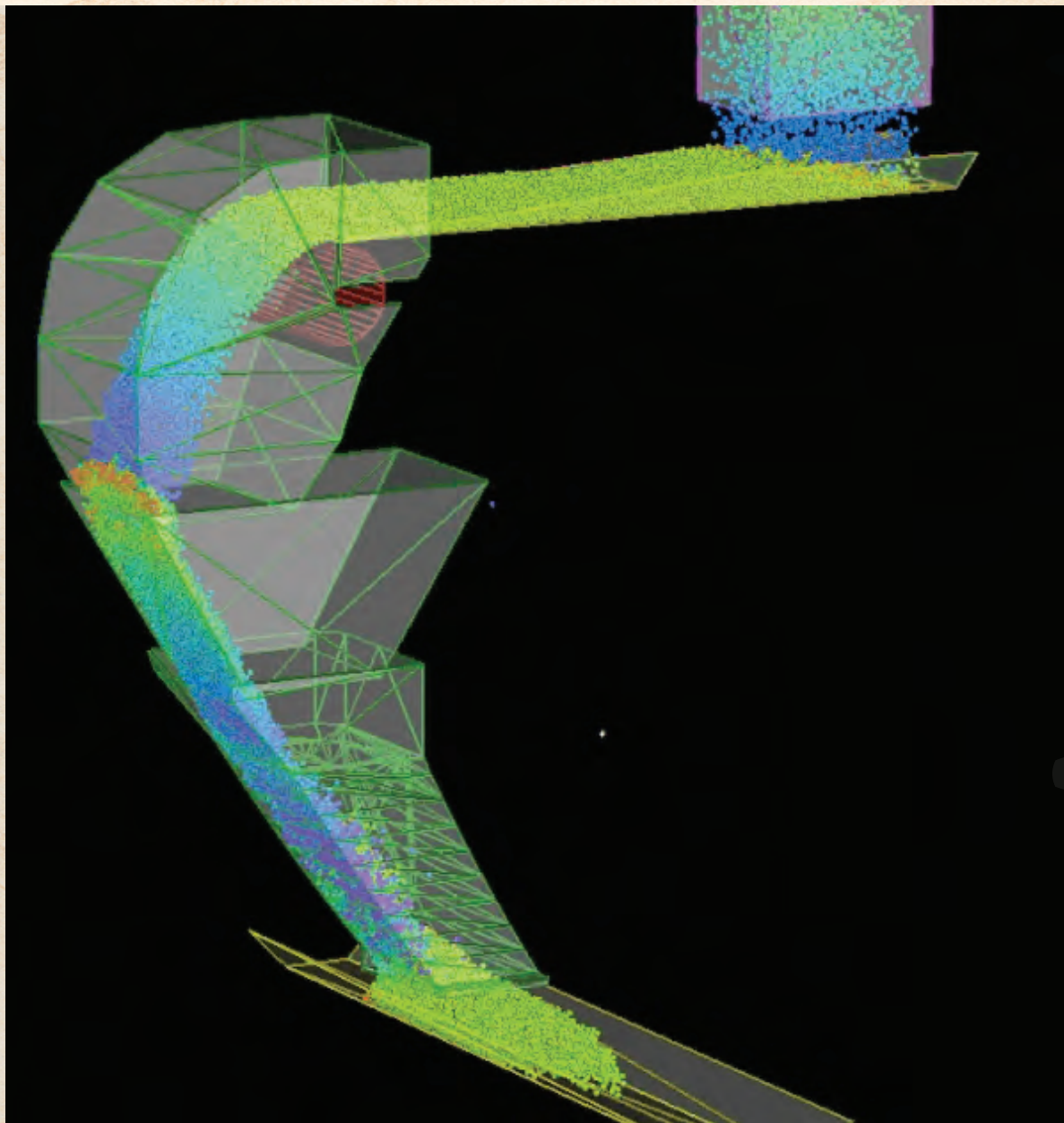
Our extensive range of products, grades and sizes that can meet standard or custom designs means we can supply complete solutions and wear packages for resisting noise, heat, abrasion and impact. All our products are developed to the highest safety and durability standards and are backed up with fast delivery and down to earth service.

CQMS Razer has the capability to simulate a bulk material flow system using Discrete Element Modelling (DEM). This technology allows our Engineers to design a system for optimum material flow and minimum wear, drawing on the full range of wear products.

Existing systems can be modelled using DEM to provide recommendations for design changes and/or changes to the selection of wear products.

CQMS Razer can provide a wear monitoring service using laser scanning to quickly and accurately identify "at risk" wear areas and recommend items for replacement, an ongoing replacement schedule, and any adjustments in the selection of wear product.

CQMS Razer can provide on site service to change out the worn liners with new liners.



**YOU CAN COUNT ON THE HIGHEST LEVEL
OF SERVICE AND SUPPORT - FROM DESIGN,
FABRICATION AND MANUFACTURING SERVICES
TO WEAR AUDITS, INSPECTIONS AND TRAINING**

HARD TO BEAT

Across the full range of our Plate Block and Wear products we offer wear solutions covering the full spectrum of applications. We know that when it comes to wear, one size doesn't fit all. It's about the environment you're operating in, the conditions you're up against and the application you're protecting.

CQMS RAZER
Mining's Edge

INTEGRATED CHUTE MANAGEMENT PROGRAM

CHUTE MAINTENANCE

CHUTE MEASUREMENT + MODELLING

Off Site

Development of a reference 3-D model from supplied structural mechanical drawings

On Site (pre work)

Verification of model by on site measurement (laser and physical measurement)
Refine 3-D model to define base line model of chute internal dimensions and wear product layout



Laser scanner for precision measurement of chute wear and replacement planning

1

PLANNING On Site

Measurement of internal chute dimensions using state of the art laser technology

Accurate measurement of wear profile

Develop accurate replacement program

IMPLEMENTATION On Site

Remove used liners during a programmed shut
Install new liners

Off Site

Remove chutes from site and repair off site
Fabricate and install new chutes fully lined

2



EFFECTIVE PRODUCT RECOMMENDATION

Full range of wear products

The most appropriate product can be recommended and supplied for each application

3

ADDITIONAL SERVICES

Continual efficiency assessment, improvement + innovation

Modelling of material flow
Assessing design changes

Down to earth service + support

Our complete Plate, Block and Wear range is backed up by fast delivery and the highest level of service and support. We offer regular on-site inspections, wear audits and performance evaluations to identify appropriate, cost-effective wear solutions to meet client needs.

Technical expertise + advice

We have the product knowledge, technical innovation and expertise to develop specifications for all your specialty and custom wear products. Our technical team offers:

- extensive capability in product design and development
- regular visits, wear audits and inspections to discuss wear problems and solutions
- on-site product trials for proven performance
- liner material upgrades and improvements
- clear technical data sheets to support in-field use
- complete wear packages including design and layouts for fixed plant and mobile equipment applications



From mining, milling and smelting, to bulk materials handling and more, CQMS Razer's **FIXED PLANT** division meets the needs of multiple industries.

We design and manufacture a range of Plate, Block and Wear products, stone dusting systems, polyurethane parts, screen components and conveyor accessories, as well as custom castings and fabrications for specific projects and applications.

COVER IMAGE - Tunnel Boring Machine (TBM) operating in Gotthard tunnel project in Europe, which is the longest tunnel ever constructed in the world. There are 4 tunnels in total, each being 59 km long and each having a TBM operating from each end and each TBM were either completely Domitised or partly protected with DOMITE. The project took 10 years and is nearly completed. DOMITE achieved a superior wear life over AR 450 BHN hardness steels by a factor of at least 5 times and thus saved the contractors millions of \$ in less downtime and TBM maintenance during the **project life**.



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CQMS Razer is committed to safety, quality and the environment. We embrace sustainable manufacturing processes and materials to minimise emissions, reduce waste and improve the safety of our people and clients. We work to ISO 9001 quality assurance standards across all of our operations and actively support regional and remote communities with local programs and initiatives such as local sponsorships and community events.