



## **FURNACE & SMELTER SERVICES**



**POWERING AFRICA'S FUTURE:  
INNOVATIVE ASSET INTEGRITY AND INDUSTRIAL SOLUTIONS**

[www.dgc-africa.com](http://www.dgc-africa.com)



## MISSION

Our mission is to provide high-quality asset integrity management and industrial solutions to clients across the continent.

We operate with the highest standards of safety, quality, and integrity, building long-term partnerships based on trust, collaboration, and exceptional service. We are committed to making a positive impact on African communities through sustainability and local content development, and strive to support economic development throughout the continent.



## DGC AFRICA'S STRATEGIC FOCUS

With over 50 years of experience in Africa, **DGC AFRICA** has built a strong reputation on the continent. The company's strategic focus is on providing innovative asset integrity management and industrial solutions to a range of industries in Africa, including mining & minerals, metals smelting, sulphuric acid plants, mineral processing, oil & gas, chemical & petrochemical, and power generation.



## PURPOSE

So that our customers can achieve operational excellence, profitable and sustainable growth, we provide high-quality, innovative, and cost-effective asset integrity management and industrial solutions, that enhance reliability, efficiency, and safety.

## 110 YEARS IN BUSINESS



DGC AFRICA IS A MEMBER OF THE DICKINSON GROUP OF COMPANIES

Dickinson Group of Companies (DGC) is a family-owned business that has been operating since 1910, providing top-notch furnace and industrial services. Over the past century, DGC has evolved into a leading provider of Asset Integrity Management & Industrial Services, including Asset Integrity Management, Industrial Linings & Coatings, Industrial Products, Abrasion & Wear Protection Solutions, Engineering Services, and Asset & Risk Management Digitisation Solutions.

DGC has an impressive track record in the market, having established an extensive client base among major mining and metals, mineral processing, and manufacturing industries. The company has built a strong reputation through its emphasis on safety and training, in-house skills, a large staff complement, and strategic partnerships with leading technology partners worldwide.



OVER THE NEXT 3-5 YEARS, DGC AFRICA WILL EMBARK ON A TWO-PHASE STRATEGIC FOCUS:

**IN PHASE 1** - The company will expand its services in Southern and Central Africa, including Zambia and the Democratic Republic of Congo, by providing innovative asset integrity management and industrial solutions to a variety of industries, while building strong relationships with clients.

**IN PHASE 2** - **DGC AFRICA** will expand its services to West Africa, particularly in Ivory Coast, Ghana, Mali, Burkina Faso, and Guinea, as well as other Anglophone, Francophone, and Portuguese-speaking countries in sub-Saharan Africa, with the aim of becoming a leading provider of asset integrity management and industrial solutions across the continent.

The company will prioritize quality service and strong client relationships, cementing its position as a top service provider to the mining, metals smelting, mineral processing, and large manufacturing industries in sub-Saharan Africa.

## DGC AFRICA'S RANGE OF SPECIALIST SERVICES INCLUDE:

	<b>FURNACE SERVICES</b>	<ul style="list-style-type: none"> <li>Furnace Rebuild Projects</li> <li>Furnace Demolitions</li> <li>Refractory Installations</li> <li>Precast Refractory Shapes</li> <li>Furnace Hotwork Services</li> <li>Furnace Inspection Services</li> </ul>		<b>MECHANICAL ENGINEERING SERVICES</b>	<ul style="list-style-type: none"> <li>Engineering, Design &amp; Construction</li> <li>Structural, Mechanical, Piping &amp; Platework</li> <li>Crane Rental, Heavy Lifting &amp; Transport</li> <li>Furnace Mechanical Projects</li> <li>Rotary Kiln &amp; Vessel Services</li> <li>Onsite Machining Services</li> <li>Conveyor Maintenance Services</li> </ul>
	<b>INDUSTRIAL SERVICES</b>	<ul style="list-style-type: none"> <li>Industrial Vacuumation</li> <li>Catalyst Handling</li> <li>Abrasion, Chemical &amp; Mechanical Resistant Cold-Welding Polymers</li> <li>Online Leak Sealing</li> <li>Storage Tank Repairs</li> </ul>		<b>OUTSOURCED STAFFING SOLUTIONS</b>	<ul style="list-style-type: none"> <li>Outsourcing of skilled workforce for specialized services</li> <li>Access to a diverse pool of qualified professionals</li> <li>Recruitment from a global talent pool</li> <li>Tailored solutions for the mining metals, and other relevant industries</li> <li>Flexible management of workforce and staffing solutions</li> <li>Commitment to quality, safety, and industrial solutions</li> </ul>
	<b>INDUSTRIAL LININGS</b>	<ul style="list-style-type: none"> <li>Corrosion Protection</li> <li>Industrial Acid Proofing</li> <li>Fibreglass Reinforced Plastic (FRP)</li> <li>Rust Inhibitors &amp; Rehabilitation</li> <li>Thermoplastic Polymer Coating</li> <li>Wear Protection Solutions</li> </ul>		<b>ASSET RELIABILITY &amp; CONDITION MONITORING</b>	<ul style="list-style-type: none"> <li>Preventative Maintenance Optimisation</li> <li>Reliability Centered Maintenance</li> <li>NDT &amp; Infrared Thermography</li> <li>Vibration Analysis</li> <li>Oil Analysis</li> <li>Ultrasound</li> </ul>



## FURNACE & SMELTER SERVICES

DGC AFRICA has been in the furnace business since 1928; when the company was involved in the construction of one of South Africa's first Blast Furnaces.

Since then, the company has been extensively involved in numerous furnace Greenfield and Brownfield projects on industrial furnaces within the metals smelting, mineral process, power generation and petrochemical refining industries throughout sub-Saharan Africa, and internationally in numerous countries around the globe, including the Middle East, Scandinavia, Latin America, Russia and CIS Countries.

The company provides a comprehensive range of furnace services to support clients in various aspects of furnace projects and maintenance.

DGC AFRICA's Furnace Services comprise of the following:

FURNACE REBUILD SERVICES / FURNACE REBUILD PROJECTS / FURNACE DEMOLITIONS / REFRACTORY INSTALLATION



## FURNACE REBUILD SHUTDOWN SERVICES

### FURNACE REBUILD SERVICES

#### SHUTDOWN PLANNING & EXECUTION

Effective planning & execution of shutdowns, turnarounds & outages are major tasks during a plant's life cycle. It is an important aspect of plant maintenance that helps improve the life expectancy of assets, to maintain inventory levels and reduce loss of revenue.

Shutdowns are costly because they are labour and material-intensive. Hence, it is key that shutdowns are carried out quickly and effectively to minimize downtime and any negative business impacts. DGC's shutdown and turnaround experts have vast experience across all metals smelting industries, providing a complete shutdown management service.

DGC's total shutdown solution management teams typically consist of an integrated team of experts as needed for large and complex asset shutdowns, turnarounds and outages.

A furnace rebuild requires a wide variety of skills and expertise. It takes a dedicated team of professionals to successfully oversee. DGC Furnace Rebuild Shutdown Services has managed numerous major furnace rebuild and upgrade projects.

Some examples of the furnace types rebuilt:

- Flash furnaces
- Six-in-line furnaces
- Electric furnaces
- Isasmelt furnaces

DGC's Furnace Rebuild Shutdown Services for major furnace outages which can cover an entire scope of work including:



#### BENEFITS

- Reduced plant downtime
- Safe project implementation
- Integrated project implementation
- Significant production-cost savings
- Higher plant utilisation



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REFRACTORY DEMOLITION & REMOVAL

PIPING REMOVAL & RE-INSTALLATION

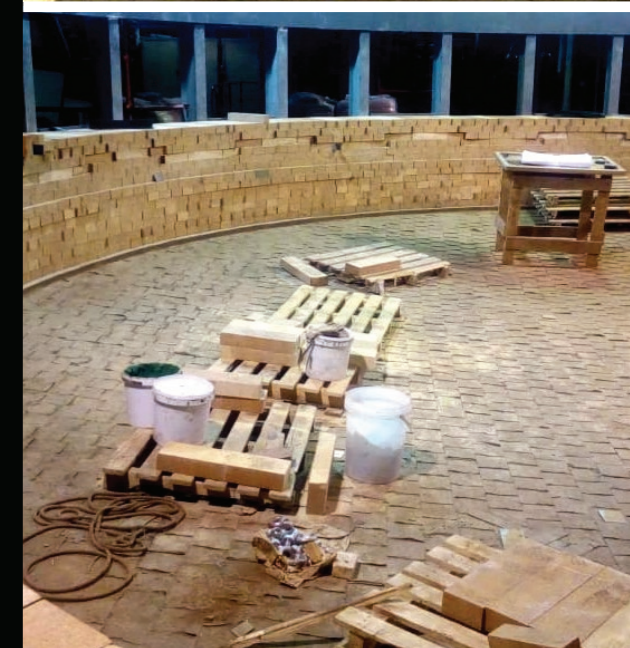
COOLING ELEMENT REPLACEMENT

MECHANICAL WORK

ELECTRICAL & INSTRUMENTATION WORK

REFRACTORY INSTALLATION

OTHER ACTIVITIES



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## SHUTDOWN EXECUTION MANAGEMENT

Acting as your shutdown manager, we can also coordinate all the resources, materials, and equipment needed to execute the project. Starting with a comprehensive shutdown plan, our shutdown management teams can ensure that your shutdown is conducted on time and on budget, allowing you to return to full production with an asset that delivers according to plan.

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SCHEDULE MANAGEMENT

SCOPE MANAGEMENT & CO-ORDINATION

SAFETY MANAGEMENT

QUALITY MANAGEMENT

LOGISTICS, RIGGING & MATERIALS MANAGEMENT

REPORTING

WORK EXECUTION

## SHUTDOWN PLANNING

DGC's shutdown and turnaround experts meet and work with your project team and the construction contractors that you select to agree on the plan and optimize the schedule.

At the completion of the planning phase, you and your contractors will have a comprehensive understanding of the agreed shutdown plan as well as all necessary documents to manage and execute the project.

SCOPING & WORK -  
BREAKDOWN STRUCTURE (WBS)  
SHUTDOWN METHODOLOGY

SHUTDOWN SCHEDULE

ACTIVITY WORK PLANS  
SAFETY MANAGEMENT PLAN

RESOURCE SCHEDULING

QUALITY MANAGEMENT PLAN

LOGISTICS, RIGGING &  
MATERIALS HANDLING PLAN

RISK MANAGEMENT PLAN

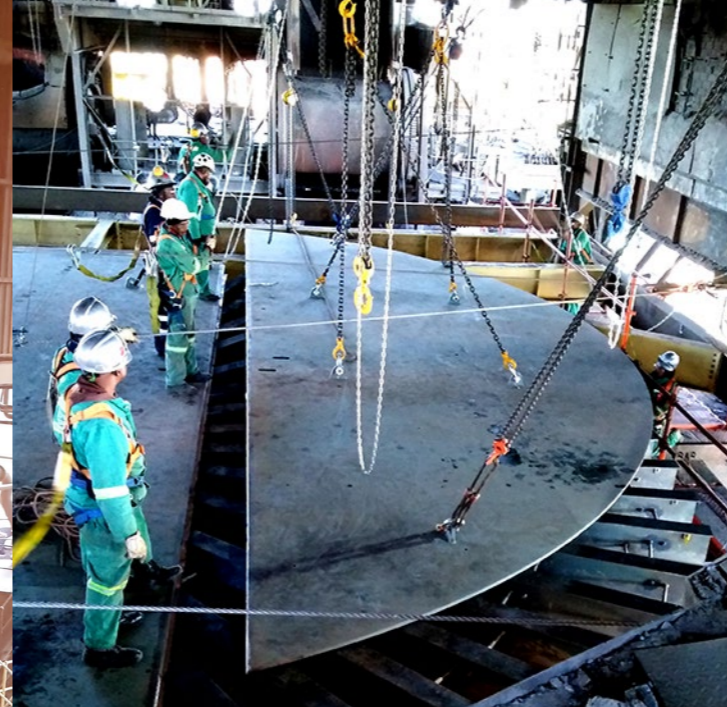


## BENEFITS

- Ensuring workforce safety
- Effective communication to all stakeholders
- Managing project scope creep
- Cost management and control
- Schedule optimization
- Better allocation of resources
- Optimization of plant utilisation







The company provides Turnkey Furnace Rebuild Project Services for major furnace outages which cover the entire scope of work including but not limited to; project and construction management services, furnace decommissioning, salamander tapping, furnace demolition and refractory installation, civil, electrical, mechanical fabrication & erection works and furnace commissioning.

At the forefront of technology, **DGC AFRICA** collaborates with leading engineering and design companies, procuring, manufacturing and installing refractory materials, which comply with stringent quality specifications, safety standards and are cost effective for the application.

**WITH EXPERIENCED** management, expert supervision, highly skilled motivated personnel, state-of-the-art equipment and standard operating procedures with a high regard for health, safety, environment and quality; the company offers clients cost-effective and tailor-made integrated solutions.

DGC AFRICA renders professional turnkey services to large, global, diversified minerals processing and metals smelting companies.



## FURNACE REBUILD PROJECTS

DGC AFRICA has more than 90 years' experience in providing turnkey furnace rebuild projects. Dickinson Group of Companies was founded in 1910 as a building construction company and in 1928 the company constructed one of South Africa's first Blast Furnaces, which marked the beginning of the company's furnace business.

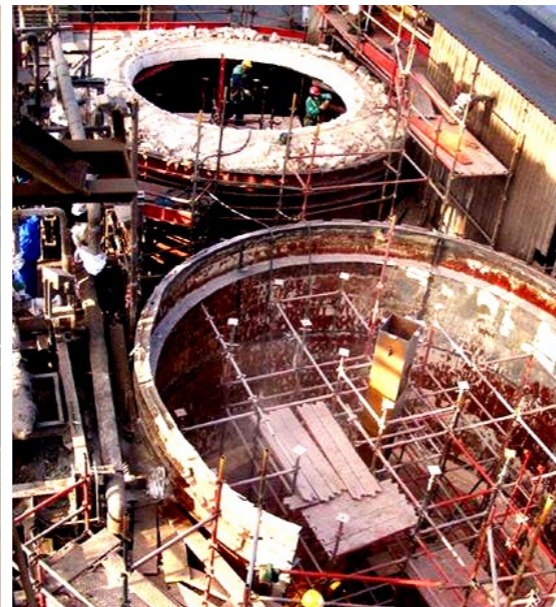
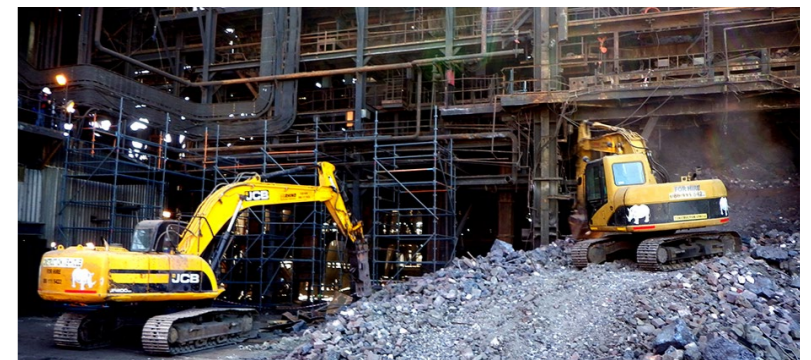
The company has been extensively involved in the initial construction and shutdown projects on industrial furnaces for the metals smelting, mineral process, power generation and petrochemical refining industries.

## FURNACE DEMOLITION

DGC AFRICA is a leading provider of specialist Furnace Demolition Services. Over the past 25 years the company has undertaken numerous demanding furnace demolition projects throughout sub-Saharan Africa.

The company's extensive client base includes blue-chip companies in the mining, metal smelting, mineral processing and industrial sectors. The company has the capacity, technology, expertise and know-how to undertake complex furnace demolition projects.

**DGC AFRICA** utilizes equipment and methodologies which are highly innovative, modern and customised for improved and safer access to challenging sites.



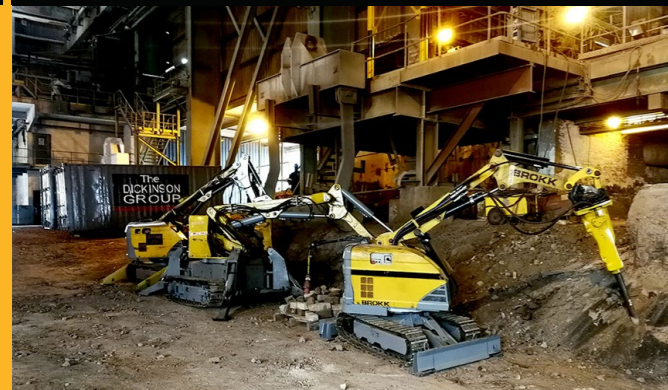




**THE COMPANY HAS MODERN, ADVANCED AND PURPOSE-DESIGNED MECHANICAL DEMOLITION EQUIPMENT, CAPABLE OF MEETING THE CHALLENGES POSED BY LARGE, DEMANDING FURNACE DEMOLITION PROJECTS.**

### AREAS OF EXPERTISE

- Turnkey demolition of furnaces
- Demolition and removal of refractories
- Confined space demolition
- Remote controlled demolition equipment
- Technology and expertise for effective demolition of hot and cold materials
- Mechanical demolition and dismantling of equipment and structures
- Site clean-up and rehabilitation
- Fast-track shutdowns under 24/7 conditions
- Accredited with high safety standards



### SPECIALIST & INNOVATIVE EQUIPMENT

The latest technology and methodologies used substantially reduce the man power, project duration and improve the safety profile of projects.

The technologies utilized include:

- Remote controlled demolition equipment
- High powered crawler excavators & hydraulic breakers
- Mechanical dismantling & rigging
- Thermal oxygen lancing
- Liquid nitrogen cooling
- Controlled hot blasting



# REFRACTORY

## REFRACTORY INSTALLATION

**DGC AFRICA has 90 years of experience in the specialised field of refractories.** The company specialises in the installation, repair and maintenance of the refractory linings across the complete range of metals smelting, mineral processing, chemical, refining and thermal power refractory consuming industries.

The company has extensive experience in the installation of all types of refractory materials including; bricklaying, pneumatic gunning, shotcreting, ramming, pumping, vibrocast and placement of castables, and ceramic fibre products across the complete range of furnace designs.

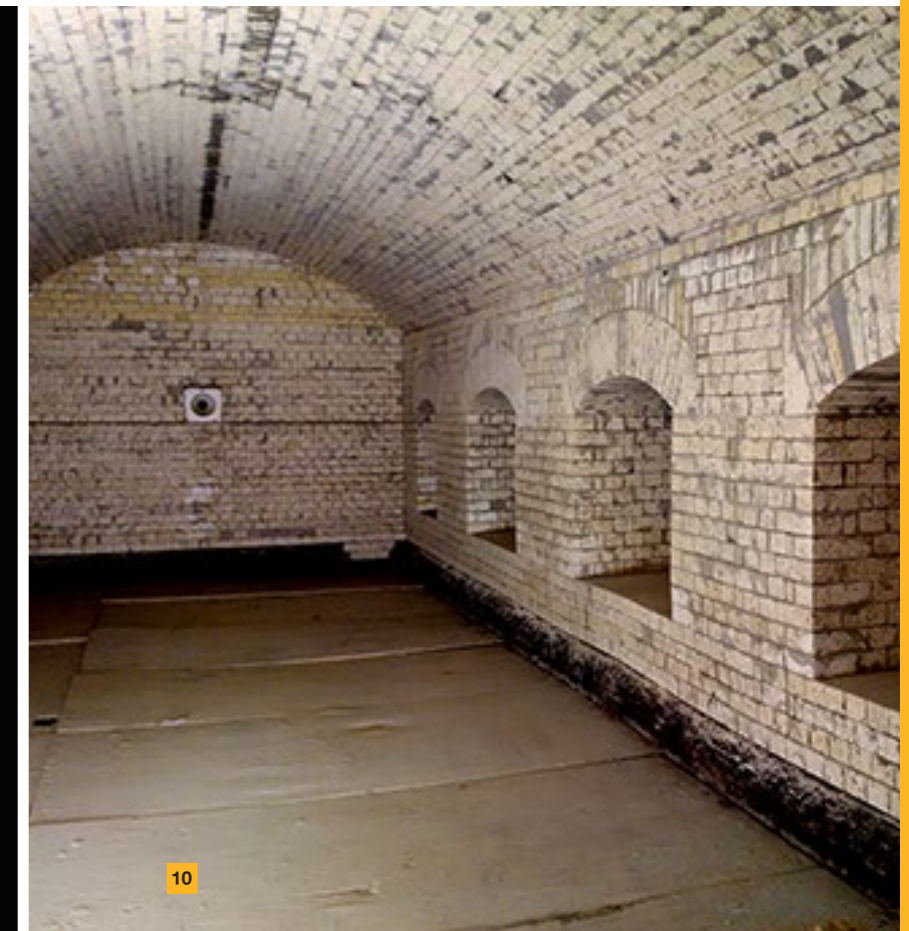
**DGC AFRICA** has carried out the installation of refractories on numerous initial construction and furnace rebuild projects throughout sub-Saharan including; South Africa, Botswana, Zimbabwe, Namibia, Mozambique, Zambia, Democratic Republic of Congo, Tanzania, Malawi, Gabon, Nigeria, Niger, Senegal, and internationally including: Israel, United Arab Emirates, Saudi Arabia, Argentina and Iceland.



### SCOPE OF WORK

Whether you need repairs to current facilities or are looking to establish a new plant, we have a qualified and industry experienced team of engineers, supervisors, bricklayers, gunning crews, and carpenters who have specialized knowledge of all facets of refractory design and construction.

**OUR BELIEF IS THAT THE REFRACTORY MANAGEMENT IS A PARTNERSHIP FOR THE LONG-TERM, OUR TEAM WILL BE AVAILABLE TO MANAGE THE PROCESS WITH YOU - FROM THE PRE-PLANNING TO THE ONGOING REFRACTORY INSTALLATION AND DEMOLITION WORKS THROUGHOUT THE SERVICE LIFE OF THE FURNACE.**







## DGC AFRICA

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