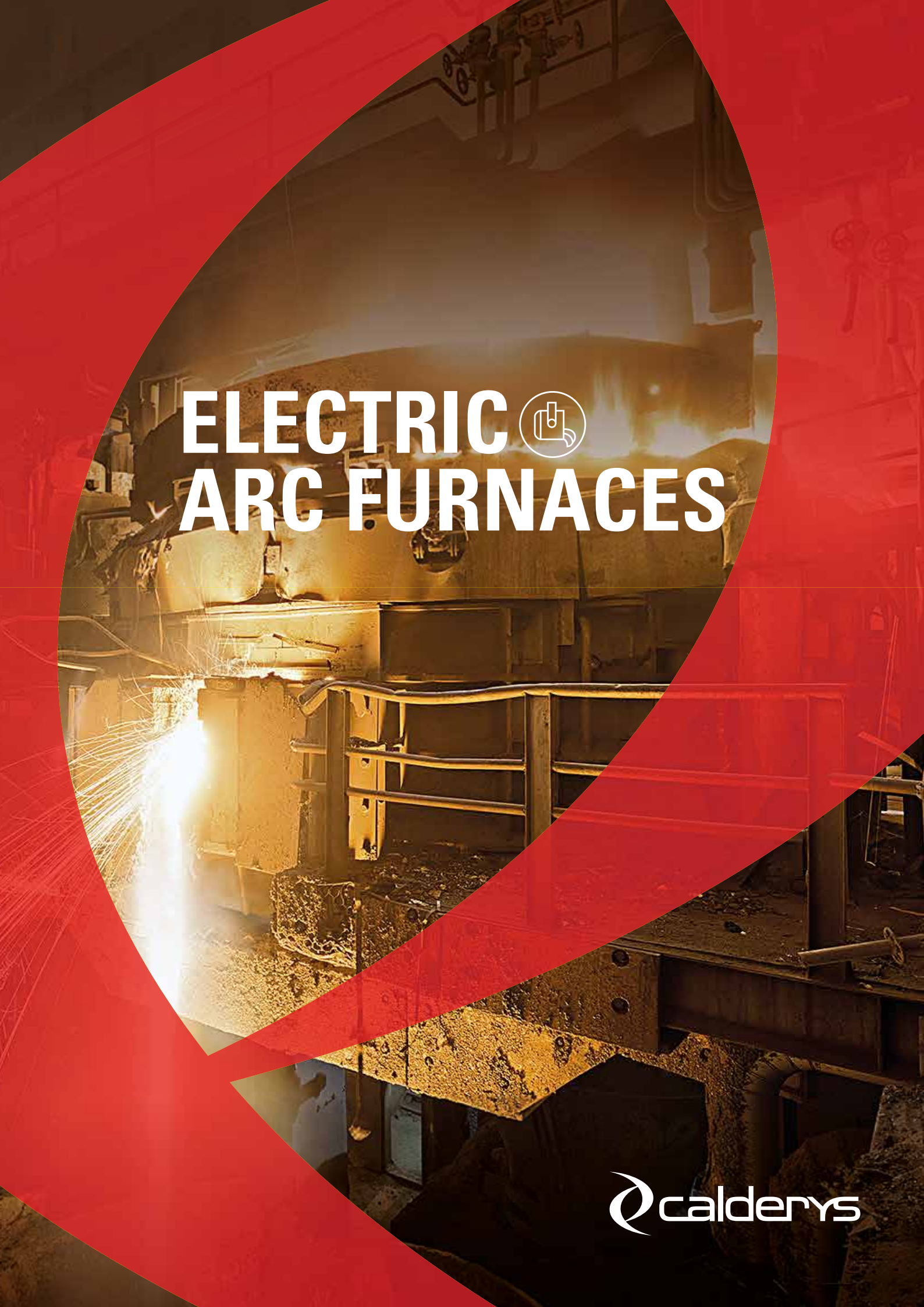


# ELECTRIC ARC FURNACES

calderys

# CALDERYS

**150+** years of combined experience

**6,500+** people and contractors in over 30 countries

**50** plants in the 5 continents

One of the world's largest supplier in high temperature solutions

Enlarged portfolio of solutions from refractory bricks and monolithics to steel casting fluxes and green molding sand solutions

**Calderys is a leading global provider for industries operating in high temperature conditions. We specialize in thermal protection for industrial equipment with a wide range of refractory products, and advanced solutions to enhance steel casting, metallurgical fluxes and molding processes.**

In 2023, Calderys joined forces with HarbisonWalker International, the largest supplier of refractory products and services in the United States.

Together, we form a high-growth, customer-centric provider with a comprehensive offering and a truly global reach. Drawing on over 150 years of combined experience, we support our customers in their energy transition needs. We count more than 6,500 people and contractors, in over 30 countries.

**Our international network of experts ensures an end-to-end offer with tailored services.** We are constantly developing innovative products and techniques in order to **optimize costs and performance**, combining world-class Research & Development and technical experts, as well as responsive supply chain and sales departments.

Our global structure allows us to design the customized solutions of today while **anticipating the industries' needs of tomorrow**. Calderys pays particular attention to the industry's impact on the environment and has a sustainability program articulated around three pillars: supporting our customers in their energy transition needs, improving our environmental footprint and being committed to people and local communities.

**Health and safety is an integral part of how we do business.** The same attention to detail that helps us provide personalized products and solutions is also applied to our rigorous health and safety criteria. Our activities require the highest level of professionalism to carry out our projects. To guarantee the strictest standards, Calderys employs a number of safety, occupational health and environmental protocols across all its entities worldwide — applicable to both our own employees as well as subcontractors and temporary workers.

# OUR VALUE TO THE IRON & STEEL INDUSTRY

As a prominent ally to the Iron & Steel industry, Calderys has steadily enlarged its service solutions from ironmaking, liquid steel processing, continuous casting, reheat furnaces and other equipments. With innovation and sustainability as fundamental parts of our DNA, we have pioneered a tremendous number of new applications, such as pitch-free tap-hole clay for blast furnaces and our cutting-edge mold fluxes. Through the combination of HarbisonWalker International and Calderys' expertise, the company is offering complementary product portfolios and total care services, bringing a vast array of solutions to support customer needs in all refractory and casting fluxes applications.

## What we bring to the Iron & Steel industry

- Close watch over ESG topics, such as product $CO_2$ footprint calculation, proposing a large range of refractory products resistant to $H_2$; as well as Environment, Health and Safety (EHS) concerns like the reduction of respirable crystaline silica (RCS) and Phenol (PaH).
- Complete portfolio of customized solutions from ironmaking, liquid steel processing, continuous casting, reheat furnaces and other equipment.
- Full set of refractory services: from engineering & design, installation, project management, dry-out & commissioning, to maintenance and refractory assessments.
- Process analysis including fluid flow and numerical simulations.
- Technical support from trial to after sales.

# OUR VALUES FOR
# THE STEELMAKING INDUSTRY

Calderys has a full product portfolio for all refractory needs including monolithic refractories and a range of bricks.

A world leader in Refractory Solutions, Calderys has the complete product and service portfolio for all applications. The wide ranging technology of Calderys ensures that the clients' needs are exceeded.
For electric arc furnace, Calderys provides specific solutions for both:

- DC Furnace
- AC Furnace

Calderys is considered a reference supplier in the steel industry, offering value-added solutions based on tailor-made designs and engineering to provide refractory linings for optimal performance.

Our comprehensive technology and services are a result of a world-class innovation network, local expertise from over 30 locations around the globe, and over 100 years of experience in the refractory business.

## Alongside the products themselves, Calderys provides a complete range of services:

- Design
- Product selection
- Thermal calculations
- FEM calculations
- Installation
- Labour & machinery
- Supervision
- Repair service support
- Full refractory project management

# CALDE® BRAND
# THE COMPLETE REFRACTORY SOLUTION FOR ELECTRIC ARC FURNACES

Calderys is committed to providing complete refractory solutions for the electric arc furnace (EAF), tailored to specific client needs for all production units and production processes.

As a global partner to the steel industry, Calderys offers a complete range of high grade refractories and related services that ensure the most comprehensive lining solutions for the EAF:

- **In-depth range of shaped and unshaped refractory products** including basic and non-basic mixes, fired and carbon-bonded bricks, ready-shapes, slide gate and isostatically pressed components.
- **Complete service and repair concepts** including dedicated machinery, repair systems, and supervision for the application of high value refractory products for the EAF.
- **Respected and long-standing partner to clients within the steel industry** providing decades of collaborative partnerships that present the latest technologies to our customer base.
- **Global sales and service network** ensuring the best and most reliable service in the industry.
- **Advanced research and development and strategic partnerships** providing package and system solutions to meet all variations of customer expectations.

In focus, the **CALDE® BRICK range** is tailored for the working lining and the safety lining of the furnace, providing both fired magnesia and carbon bonded technologies to withstand even the most demanding of applications.

**Calderys Monolithic Refractory Solutions** make use of high grade raw materials that provide finished products meeting key requirements of ease of installation and target performance, optimising technical and commercial parameters. Calderys ready-shapes and cast-in-situ technologies for tapping, spout and delta roof offer robust, reliable and long-lasting solutions for these high demand areas.

Calderys continues to evolve and improve its technical offering, ensuring that the ever-changing demands of clients and applications can be met through the supply of tailor-made solutions and services to reach the **optimum technical and commercial considerations.**

## EAF Lining - MgO-C Bricks

| Aera | | Product recommendations | Chemical analysis (%) | | | | Residual Carbon % | Bulk Density g/cm3 | Apparent Porosity % | CCS MPa | Anti Oxidants |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MgO | CaO | $Fe_2O_3$ | $SiO_2$ | | | | | |
| Lower Wall | Cost-Effective | Calde® Brick MC R 112-N | 94.5 | 2.3 | 0.8 | 2.3 | 6 | 2.94 | 8.3 | 60 | No |
| | Standard Grade | Calde® Brick MC R 212-N | 97 | 0.9 | 0.7 | 0.9 | 6 | 2.99 | 6 | 60 | No |
| | Improved Grade | Calde® Brick MC R 552-N | 96.5 | - | 0.8 | 0.8 | 6 | 3.02 | 6.5 | 60 | No |
| Upper Wall | Standard Grade | Calde® Brick MC R 214-N | 97 | 0.9 | 0.7 | 0.9 | 12 | 2.92 | 4.2 | 45 | No |
| | Improved Grade | Calde® Brick MC R 554-N | 96.5 | - | 0.8 | 0.8 | 12 | 2.98 | 5.5 | 45 | No |
| Slag Line | Cost-Effective | Calde® Brick MC R 554-N | 96.5 | - | 0.8 | 0.8 | 12 | 2.98 | 5.5 | 45 | No |
| | Standard Grade | Calde® Brick MC R 604-N | 97 | 1.1 | 0.65 | 0.55 | 12 | 3.04 | 3.7 | 45 | No |
| | | Calde® Brick MC R 606-N | 97 | 1.1 | 0.65 | 0.55 | 15 | 2.99 | 3.3 | 35 | Yes |
| | Improved Grade | Calde® Brick MC R 706-A | 97.5 | 1 | 0.6 | 0.5 | 15 | 2.99 | 3.1 | 35 | Yes |
| Hot Spot | Cost-Effective | Calde® Brick MC R 554-N | 96.5 | - | 0.8 | 0.8 | 12 | 2.98 | 5.5 | 45 | No |
| | Standard Grade | Calde® Brick MC R 556-N | 96.5 | - | 0.8 | 0.8 | 15 | 2.92 | 5.5 | 35 | No |
| | | Calde® Brick MC R 606-N | 97 | 1.1 | 0.65 | 0.55 | 15 | 2.99 | 3.3 | 35 | No |
| | Improved Grade | Calde® Brick MC R 606-A | 97 | 1.1 | 0.65 | 0.55 | 15 | 2.98 | 2.7 | 35 | Yes |
| | | Calde® Brick MC R 706-A | 97.5 | 1 | 0.6 | 0.5 | 15 | 2.99 | 3.1 | 35 | Yes |
| Door Area | Standard Grade | Calde® Brick MC R 604-B | 97 | 1.1 | 0.65 | 0.55 | 12 | 3.04 | 3.4 | 45 | Yes |
| | Improved Grade | Calde® Brick MC R 704-E | 97.5 | 1 | 0.6 | 0.5 | 12 | 3.01 | 4.1 | 45 | Yes |

## EAF Lining - Fired Bricks

| Aera | | Product recommendations | Chemical analysis (%) | | | | Residual Carbon % | Bulk Density g/cm3 | Apparent Porosity % | CCS MPa | Anti Oxidants |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MgO | CaO | $Fe_2O_3$ | $SiO_2$ | | | | | |
| Lower Wall, Upper Wall | Standard Grade | Calde® Mag Brick MD 60DB | 60 | - | - | 2.0 | - | 3.08 | 16 | 40 | No |
| Slag Line, Hot Spot | Standard Grade | Calde® Mag Brick MD 60 DB | 60 | - | - | 2.0 | - | 3.08 | 16 | 40 | No |
| | Improved Grade | Calde® Mag Brick MD 61 SRB | 60 | 0.6 | 11.7 | 1.5 | 7.0 | 3.15 | 16 | 45 | No |
| Permanent Lining | Standard Grade | Calde® Mag Brick FM 92 | 92 | 3.0 | 2.5 | 4.5 | 2.5 | 2.9 | 18 | 50 | No |
| | Improved Grade | Calde® Mag Brick FM 95 | 95 | 2.0 | 1.5 | 2.5 | 1.0 | 2.95 | 18 | 50 | No |

FOCUS

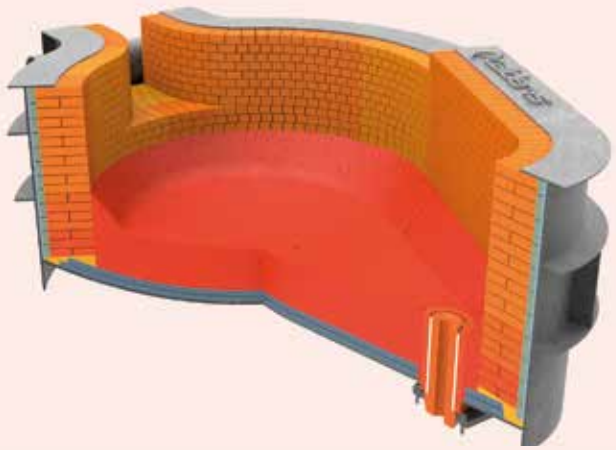
## EAF BOTTOM / HEARTH

The CALDE® MAG DRY product range is based on Alpine microcystalline magnesia or synthetic high calcium ferrite magnesia, specifically formulated for best compaction to resist steel and slag penetration.

Dry-Vibratable EAF hearth installations provide numerous advantages:

- Low initial cost
- No-dryout or preheat needed
- Easy to repair and re-contour
- Fast installation
- Forms a monolithic surface 'in situ' to slow metal penetration

The CALDE® MAG DRY product range performs particularly well in the EAF hearth.



## EAF HEARTH PRODUCTS

Offering tailor-made solutions that meet the commercial and technical requirements for optimal performance.

V R CALDE® MAG DRY K 75
V R CALDE® MAG DRY K 70 G8
V R CALDE® MAG DRY K 56
V R CALDE® MAG DRY K 75 G6
V R CALDE® MAG DRY K 80 G8
V R CALDE® MAG DRY K 85
V R CALDE® MAG DRY K 67 G6
V R CALDE® MAG DRY K 85 G6
V R CALDE® MAG DRY K 67 G8

FOCUS

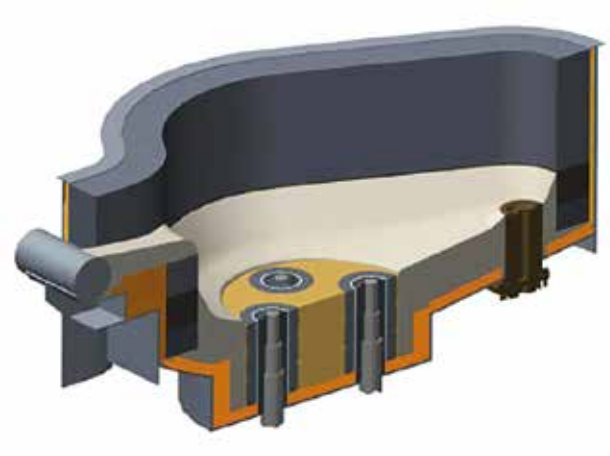
## CALDE® MAG DRY PRODUCTS IN A DRI AC ELECTRIC ARC FURNACE

Mini-mills melting direct reduced iron (DRI) often experience an extremely aggressive environment in the EAF, specifically in the hearth of the furnace.

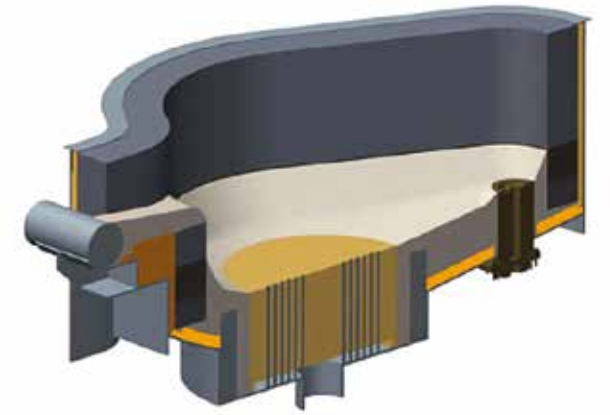
For this application, **Calderys recommends CALDE® MAG DRY K 75 G6 and CALDE® MAG DRY K 67 G8 series Hearth Ramming.** The physical and chemical properties of these products promote fast and complete sintering, reducing the potential for erosion and chemical attack. With these products, the sintering process is volume stable thus eliminating cracking and steel infiltration.

**CALDE® MAG DRY** products have proven their effectiveness in AC EAF mini-mills melting DRI, showing significant savings in refractory consumption of up to 20% compared to competitors' products.

## EAF WITH BILLET ANODES



## EAF WITH ELECTRODE PINS



## EAF WITH CONDUCTIVE HEARTH

**Conductive Hearth Brick**

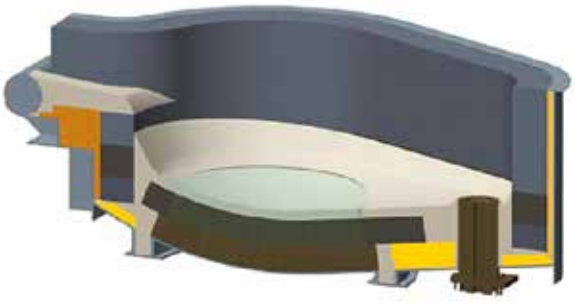
CALDE® BRICK MC R 604-N S PI

**Conductive Hearth Mortar**

T CALDE® TROWEL G 100

**Conductive Mix Installation and Hot/Cold Repair**

R CALDE® MAG RAM R 96 G



## DC EAF PRODUCTS

**Hearth Anode Zone**

V R CALDE® MAG DRY K 56

**Anode Outer Sleeve**

CALDE® MAG BRICK MD 58 DB

**Hearth Surrounding Wall**

CALDE® MAG BRICK FM 97

**Anode Sleeve Brick**

CALDE® MAG BRICK MD 58 SRB

**Hearth - Non Anode Zone (Optional)**

V R CALDE® MAG DRY K 75 G6

V R CALDE® MAG DRY K 85 G6

V R CALDE® MAG DRY K 67 G6

R Rammed

V Vibrated

T Trowelling

## EAF Lining - Bricks For DC Lining Concept

| Aera | Product recommendations | Chemical analysis (%) | | | | Resi-dual Carbon % | Bulk Density g/cm3 | Appa-rent Poro-sity % | CCS MPa | Anti Oxi-dants |
|---|---|---|---|---|---|---|---|---|---|---|
| | | MgO | CaO | $Fe_2O_3$ | $Si0_2$ | | | | | |
| Hearth Surrounding Wall | CALDE® MAG BRICK FM 97 | 96 | 2.0 | 1.5 | 1.5 | - | 3.05 | 17 | 40 | No |
| Conductive Hearth Brick | CALDE® BRICK MCR 604-N S PI | 97 | 1.1 | 0.7 | 0.6 | 14 | 3.34 | 2 | 60 | No |
| Anode Sleeve Brick | CALDE® MAG BRICK MD 58 SRB | 58 | - | - | 1.5 | - | 3.15 | 16 | 45 | No |
| Anode Outer Sleeve | CALDE® MAG BRICK MD 58 D8 | 58 | - | - | 2.0 | - | 3.10 | 16 | 40 | No |

FOCUS

## DIRECT-CURRENT ELECTRIC ARC FURNACE

DC furnaces are gradually growing in popularity where plants are either being upgraded or new plants are being built.

A noticeable feature of this kind of furnace is the extra thick hearth safety lining. Originally these furnaces had full bricked hearths, including complicated & very expensive brick shapes in between the anode pins in the bottom. Calderys dry rammed hearth materials for these DC EAF designs, for example, CALDE® MAG DRY K 56, are lower in Fe2O3 and of a finer grain to fit in and around the anode pins.

A typical feature of the DC EAF is that there are no specific hot spots in the sidewalls resulting from the electrodes. Depending on the use of sidewall burners, it is possible that DC furnaces can employ one magnesia carbon quality for the entire working lining side wall.

# ADDITIONAL MIX PRODUCTS

### Backfill

V R CALDE® MAG DRY K 78 G2

### EBT Filling Sand

SF CALDE® DRY SM 50

### Ramming Mix

**Standard Grade**

V R CALDE® MAG PATCH P 80

**Improved Grade**

V R CALDE® MAG DRY K 95

### Mortar

**Standard Grade**

G T CALDE® MAG COAT S 80

**Improved Grade**

T CALDE® MAG COAT K 95

G Gunned

R Rammed

Hot Hot Installation

RsV Ready Shaped / Vibrating

SC Spraycast

SF Self-Flow

V Vibrated

T Trowelling

# CALDERYS ACCESSORIES FROM EAF

## SPOUT / LAUNDER

**Ramming / Casting**

V R CALDE® MAG CAST G 95

**Cast on Site**

SF CALDE® FLOW LT 95 SP
SF CALDE® FLOW UC 92 D4

**Ready Shape**

V CALDE® CAST UC 90 D
V CALDE® CAST LT 95 SP G20

### FOCUS SPOUT / LAUNDER

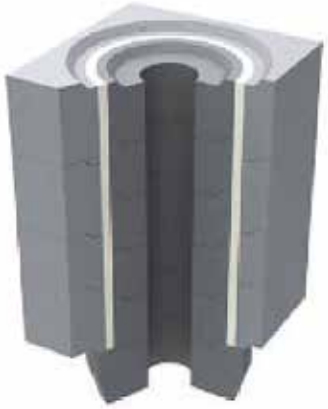
The EAF launder tap-hole has to withstand:

- Severe slag corrosion
- Repeat thermal cycling
- Hot erosion by steel and slag

Typical product recommendations to resist these stresses are CALDE® CAST UC 90 D or CALDE® CAST LT 95 SP G20, with optional steel fibre reinforcement for improved spalling resistance.

For more product info, see monolithic refractory technical specification on page 13

## ECCENTRIC BOTTOM TAP-HOLE (EBT)



**EBT - Surround Block**

CALDE® BRICK MC R 212-N

**EBT - End Block**

CALDE® BRICK ASC 26-62A
CALDE® BRICK MC R 706-E

**EBT- Inner Segments**

**Standard Grade**
CALDE® BRICK MC R 706-E

**Improved Grade**
CALDE® BRICK MC R 706-E S PI

**EBT - Filling Sand**

SF CALDE® DRY SM 50

**EBT - Annular Gap**

V R CALDE® MAG CAST G 95

### FOCUS EBT

Tap-hole assembly is a key consideration for the EAF. For this application, Calderys recommends:

- High quality 15% MgO-C bricks with antioxidant additions for the sleeve, such as CALDE® BRICK MC R 706-E, or CALDE® BRICK MC R 706-E S PI
- High quality 15% MgO-C bricks with specific metallic additions, such as CALDE® BRICK MC R 706-E, or alumina-SiC-C bricks, such as CALDE® BRICK ASC 26-62A, for the end block.

Calderys materials for the EBT exhibit excellent wear characteristics resulting in superb furnace availability.

| Aera | Grade | Product recommendations | Chemical analysis (%) | | | | | Resi-dual Carbon % | Bulk Density g/cm3 | Appa-rent Poro-sity % | CCS MPa | Anti Oxi-dants |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MgO | CaO | $Fe_2O_3$ | $SiO_2$ | $Al_2O_3$ | | | | | |
| Surround Block | Standard | CALDE® BRICK MC R 212-N | 97 | 0.9 | 0.7 | 0.9 | - | 6 | 2.99 | 6 | 60 | No |
| End Block | | CALDE® BRICK ASC 26-62A | 2.8 | 0.8 | 2.9 | - | 63.0 | 15 | 2.91 | 4.4 | 43 | Yes |
| End Block, Inner Segments | | CALDE® BRICK MC R 706-E | 97.5 | 1.0 | 0.6 | 0.5 | - | 15 | 2.98 | 2.3 | 35 | Yes |
| Inner Segments | Improved | CALDE® BRICK MC R 706-E S P | 97.5 | 1.0 | 0.6 | 0.5 | - | 17 | 3.28 | 2 | 60 | Yes |

# CALDERYS
# DELTA ROOF

**Ready Shape / Cast on Site***

- RsV CALDE® CAST UB 80
- RsV CALDE® CAST UB 85
- RsV CALDE® CAST UB 85 D3
- RsV CALDE® CAST UB 86 G8
- RsV CALDE® CAST UC 80
- RsV CALDE® CAST UC 90 D

**Cast on Site***

- SF CALDE® FLOW UB 80
- SF CALDE® FLOW UC 88 D4
- SF CALDE® FLOW UC 92 D4

**Ramming Mix**

- R CALDE® PLAST 85 S

**Mortar**

- T CALDE® TROWEL SB 75

*Note: For Cast on Site, it is typical to use the same products as for Ready Shape but in extreme installation conditions Calderys CALDE® FLOW products, with their higher flow properties, can be considered.

## FOCUS
## PRECAST DELTA ROOF FOR EAF

The main wear characteristics of the EAF Delta are:

- High erosion / corrosion from metal and slag - direct from the molten bath mass
- High temperature radiation during melting / treatment of steel
- High temperature impact from the electrodes
- High erosion / corrosion from the effect of the fume offtake
- Direct impact of hot corrosive gases from incorrectly-aligned $O_2$ burners through the slag door

Calderys has years of expertise in creating refractory solutions to resist these extreme stresses, with one popular option being the Precast Delta Roof, which is tailored to exact client specifications.

The Ready-Shape Departments of Calderys create hundreds of customized EAF roofs every year.

These experts handle everything from initial design to palletization to prepare the finished Delta Roof for transport to the client.

**EAF Delta - Brick Roof Options**

| Aera | | Product recommendations | Chemical analysis (%) | | | Bulk Density g/cm³ | Apparent Porosity % | CCS MPa | Anti Oxidants |
|---|---|---|---|---|---|---|---|---|---|
| | | | $Fe_2O_3$ | $SiO_3$ | $Al_2O_3$ | | | | |
| Brick Roof | Standard Grade | CALDE® BRICK B 75 | 1.7 | 17.5 | 76.0 | 2.68 | 18 | 70 | No |
| | Improved Grade | CALDE® BRICK B 85 | 1.8 | 11.0 | 84.0 | 2.78 | 19 | 80 | No |
| | High Slag Resistance* | CALDE® BRICK B 80 D3 | 1.7 | 14.0 | 79.0 | 2.81 | 19 | 90 | No |

NOTE: For specific zones requiring higher slag resistance, e.g. fume extraction side or around the electrodes.

# CALDERYS
# MACHINES FOR EFFICIENT INSTALLATION & REPAIR

Effective installation contributes significantly to refractory performance, while maintenance ensures a long lining life, so Calderys supplies the machines clients need for installations and repairs of EAF linings.


## CALDE® MACHINE DRY GUN

Rotary dry gunning machine operated with compressed air.
Available in 2 models: permanent or mobile.

### FOCUS
### GUNNING / FETTLING

Clients worldwide have had great success with their EAF repairs using the Calderys CALDE® MAG FRIT (fettling) and CALDE® MAG GUN (gunning) product lines.

These Calderys products are specially tailored for mini-mills to increase furnace availability by safely increasing furnace life and reducing maintenance and partial patch down time.

## CALDE® MACHINE EAF

Gunning manipulator for repair of all parts of the EAF: side wall, banks, hearth, as well as protection of the water cooled panels. Operates via gunning "robot" in modes ranging from manual to fully automatic.

**Fettling**

- F CALDE® MAG FRIT 80 G5
- F CALDE® MAG FRIT 80 G8
- F CALDE® MAG FRIT 40 G5

**Gunning Repair**

- G CALDE® MAG GUN G 80
- G CALDE® MAG GUN GS 82
- G CALDE® MAG GUN G 89
- G CALDE® MAG GUN S 65
- G CALDE® MAG GUN S 80
- F CALDE® MAG GUN S 89
- F CALDE® MAG GUN P 82
- F CALDE® MAG GUN P 89
- F CALDE® MAG GUN P 83

# A SOLUTION WHENEVER YOU NEED US

| PRODUCTS NAMES | MAIN COMPONENT | BINDING SYSTEM | MAX RECOMMENDED Temp°C | MAX GRAINS SIZE mm | CHEMICAL ANALYSIS (Averages %) | | |
|---|---|---|---|---|---|---|---|
| | | | | | MgO | CaO | $SiO_2$ |
| CALDE® CAST LT 95 SP G20 | Tabular Alumina, Spinel | Hydraulic | 1850 | 25 | 92.5 | 5.4 | 0.2 |
| CALDE® CAST UB 80 | Bauxite | Hydraulic | 1650 | 6 | 82 | - | 12 |
| CALDE® CAST UB 85 | Bauxite | Hydraulic | 1680 | 6 | 83.5 | - | 11.6 |
| CALDE® CAST UB 85 D3 | Bauxite, Chromium oxide | Hydraulic | 1700 | 6 | 87 | - | 6.5 |
| CALDE® CAST UB 86 G8 | Bauxite | Hydraulic | 1650 | 8 | 86.5 | - | 9.2 |
| CALDE® CAST UC 80 | Corundum | Hydraulic | 1700 | 10 | 80 | - | 17 |
| CALDE® CAST UC 90 D | Corundum, Chrome oxide | Hydraulic | 1800 | 10 | 90.5 | - | 2.3 |
| CALDE® DRY SM 50 | Olivine | Ceramic | 1750 | 6 | - | 50 | 40 |
| CALDE® FLOW LT 95 SP | Tabular Alumina, Spinel | Hydraulic | 1750 | 6 | 95.7 | 2.4 | 0.1 |
| CALDE® FLOW UB 80 | Bauxite | Hydraulic | 1600 | 6 | 83 | - | 14 |
| CALDE® FLOW UC 88 D4 | Corundum, Chrome oxide | Hydraulic | 1750 | 6 | 88 | - | 3.6 |
| CALDE® FLOW UC 92 D4 | Corundum, Chrome oxide | Hydraulic | 1850 | 6 | 91 | - | - |
| CALDE® MAG CAST G 95 | Magnesia | Chemical | 1750 | 3.15 | 0.4 | 94.4 | 2.2 |
| CALDE® MAG COAT K 95 | Magnesia | Chemical | 1650 | 0.5 | - | 95 | 2.4 |
| CALDE® MAG COAT S 80 | Magnesia | Chemical | 1650 | 3.5 | 1 | 80 | 13 |
| CALDE® MAG DRY K 56 | Dolomite | Ceramic | 1700 | 4 | - | 56 | 1.9 |
| CALDE® MAG DRY K 67 G6 | Magnesia | Ceramic | 1750 | 6 | 0.3 | 67.5 | 1.3 |
| CALDE® MAG DRY K 70 G8 | Magnesia | Ceramic | 1750 | 8 | - | 71 | 0.7 |
| CALDE® MAG DRY K 67 G8 | Magnesia | Ceramic | 1750 | 8 | 0.3 | 67.5 | 1.3 |
| CALDE® MAG DRY K 75 | Magnesia | Ceramic | 1750 | 5 | - | 77 | 0.7 |
| CALDE® MAG DRY K 75 G6 | Magnesia | Ceramic | 1750 | 6 | - | 78.5 | 0.8 |
| CALDE® MAG DRY K 78 G2 | Magnesia | Ceramic | 1750 | 2 | - | 78 | 1.2 |
| CALDE® MAG DRY K 80 G8 | Magnesia | Ceramic | 1750 | 8 | - | 79 | 0.7 |
| CALDE® MAG DRY K 85 | Magnesia | Ceramic | 1750 | 5 | - | 84 | 1 |
| CALDE® MAG DRY K 85 G6 | Magnesia | Ceramic | 1750 | 6 | - | 84 | 1 |
| CALDE® MAG DRY K 95 | Magnesia | Ceramic | 1700 | 5 | 1.0 | 94.5 | 1.5 |
| CALDE® MAG FRIT 40 G5 | Dolomite | Ceramic | 1700 | 4 | 0.6 | 37.5 | 2 |
| CALDE® MAG FRIT 80 G5 | Magnesia | Ceramic | 1700 | 5 | - | 80 | 1.4 |
| CALDE® MAG FRIT 80 G8 | Magnesia | Ceramic | 1700 | 8 | - | 80 | 1 |
| CALDE® MAG GUN G 80 | Magnesia | Chemical | 1750 | 3.5 | 0.6 | 81.3 | 12.7 |
| CALDE® MAG GUN G 89 | Magnesia | Chemical | 1750 | 3.5 | 1 | 86 | 9.3 |
| CALDE® MAG GUN GS 82 | Magnesia | Chemical | 1700 | 4 | - | 82 | 9.3 |
| CALDE® MAG GUN P 82 | Magnesia | Chemical | 1750 | 3.5 | 0.6 | 82 | 11.5 |
| CALDE® MAG GUN P 89 | Magnesia | Chemical | 1750 | 3.5 | 1.3 | 88.1 | 5.9 |
| CALDE® MAG GUN S 65 | Magnesia | Chemical | 1750 | 3.15 | - | 65 | 12 |
| CALDE® MAG GUN S 80 | Magnesia | Chemical | 1750 | 3.5 | 0.6 | 80.9 | 12.5 |
| CALDE® MAG GUN S 89 | Magnesia | Chemical | 1750 | 3.5 | 1.1 | 87.1 | 6.9 |
| CALDE® MAG PATCH P 80 | Magnesia | Chemical | 1700 | 3 | 11 | 81 | - |
| CALDE® MAG RAM R 96 G | Magnesia, Carbon | Chemical | 1700 | 5 | 0.5 | 96 | 1.5 |
| CALDE® PLAST 85 S | Bauxite | Chemical | 1700 | 6 | 85 | - | 7.4 |
| CALDE® TROWEL G 100 | 100% Graphite | Chemical | 1650 | 0.1 | - | - | - |
| CALDE® TROWEL SB 75 | Bauxite | Ceramic | 1650 | 1.2 | 76 | - | 19.8 |

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