DOMINION
Industry

IRON AND STEEL

The material without alternative

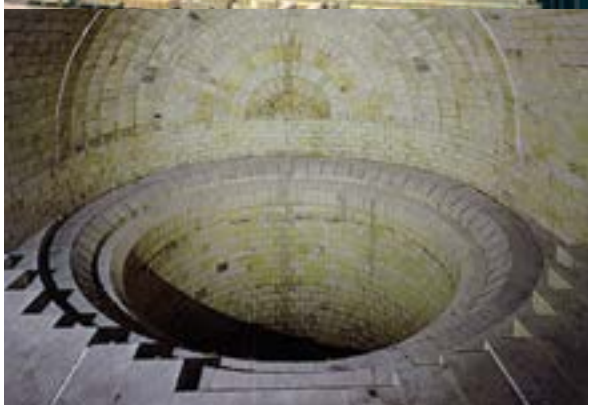
Coking plants, blast furnaces, steelshops, direct reduction plants, pelletising and sintering plants – these all testify to the international experience and the sound know-how of our engineers. Our solutions use exclusively high-quality, tried and tested refractory materials. The refractory installation work is performed with the maximum precision. Only in this manner can Dominion meet the extreme challenges posed by the iron and steel industries and create installations that comply with high safety standards over the long term as well.

Based on state-of-the-art lining technologies, the refractory units are ready for production within the shortest amounts of time. This is the case both for new linings or for inspections and maintenance. With our own programme for pre-cutting of bevelled bricks for bustle pipes, we have for example managed to enhance fitting precision and at the same time reduce the lining time by up to 25%.

When servicing steelshops, Beroa undertakes the whole range of refractory activities. In order to safeguard the production processes, we are also integrated into the customer's process flows.
Other tried and tested hot repair methods are ceramic welding and gunning with fused silica for coke plants and robot gunning or shotcreting for blast furnaces.

No matter which of the above plants are affected, whether e. g. hot blast stoves, heat treatment installations, cupolas or electric furnaces, we always focus on the installation's sustainability and efficiency, environmental protection and safety.
Significant energy reduction cost based on waste heat recovery technologies such ORC (Organic Rankine Cycle), Wet Steam Turbine (WST) from flue gas and cooling liquids.

In hot or cold condition, reducing shutdown times and expanding the life of the furnace are our targets



IRON AND STEEL /
Sector

SOME CUSTOMERS

- ARCELOR MITTAL
- BECK + KALTHEUNER
- CALDERYS
- CHINA STEEL
- DANIELI CORUS
- HÜTTENWERKE KRUPP MANNESMANN
- PAUL WURTH
- REFRATECHNIK
- ROGESA
- SSAB
- SALZGITTER
- SIMEC
- TENARIS
- TERNIUM
- THYSSEN KRUPP
- ILVA
- US STEEL
- JINDAL
- HADEED
- BLUE SCOPE STEEL
- ONE STEEL
- VALLOUREC

REFERENCE

CUSTOMER - ThyssenKrupp/ Carbonaria

LOCATION - Germany, Duisburg Schwelgern

PROJECT - Coke Oven, 2 Batteries each

70 Chambers with 8,35m hight

TEAM - 450 refractory specialists

INSTALLATION - Approx. 86.000 t refractory materials

EXECUTION - 14 months per Battery

TECHNOLOGIES:

BLAST FURNACE

New construction, Revamping, Demolition and Salamander Blasting, Intermediate Hearth Repair, Hot Repair Taphole, Shotcrete, Robot Gunning, Carbon Bottom robotic Grinding. Own lightweight hanging platform system.

HOT BLAST SYSTEM

New construction, revamping, demolition, cold and hot repair for hot blast stoves, hot blast main, bustle pipe and mixing pot. Precutting of bevel-bricks for bustle pipe.

COKE OVEN BATTERY

New construction, Revamping, Demolition, hot repair, Steel installation, ceramic welding and others
Chimney construction and maintenance.

STEELSHOPS

Permanent maintenance, including full line service if requested for steelshops (pig Iron Mixers, Torpedo Leadles, Converter, electric arc furnace, Runner Systems, Tundish (Continous Casting).
Turnkey refractory: Engineering, Material delivery, new building, revamping, demolition for reheating furnaces (rotary hearth, pusher type, walking beam). Suspended roofs KARRENA and DEWESIT technology.

DIRECT REDUCTION, SINTER- AND PELLET PLANTS

Turnkey refractory: Engineering, Material delivery, new building, revamping, demolition. Chimney construction and maintenance.

ENERGY EFFICIENCY

Energy efficiency technologies including energy monitoring, electrical control, heat use optimization and waste heat recovery, furnace optimization service, steam pressure recovery project, compressed air network global optimization and retrofit, air and flue gas quality monitoring system, water treatment plante.