



MADS TRADE CO.

STEEL INDUSTRY

2024



DIRECT REDUCED IRON



SPONGE IRON

Iron oxide ores taken out from the Earth are allowed to absorb carbon by a reduction process. In this natural reduction, as the iron ore is warmed up with carbon, it results in a surface with hole marks, hence the name "Sponge Iron". The commercial process is a solid solution reduction, also called Direct-Reduced Iron (DRI).



DIRECT REDUCED IRON



BRIQUETTED IRONS (HOT – COLD)

HBI is a modern charge material for use in combination with scrap or as an alternative to scrap in steelmaking furnaces or as an addition to blast furnaces in ironmaking applications. Because it is made directly from iron oxides without melting, HBI contains none of the impurities in smelted iron resulting from coke, limestone and scrap inclusions. Depending on the chemistry of the iron oxide used in its production, HBI is low in residual metal elements (copper, nickel, chrome, molybdenum and tin), as well as sulfur and phosphorus.





FERRO ALLOYS

FERRO SILICON MANGANESE

Silicon Manganese is an alloy of manganese, silicon and iron. It is a cost-effective blend of manganese and silicon and is normally the product of choice for steel manufacturers. It is consumed in all steel products and used in higher quantities in 200 series stainless steel, alloy steel and manganese steel.



FERRO SILICON

Ferrosilicon is used to reduce metals from their oxides and to deoxidize steel and other ferrous alloys as a silicon source. Ferro Silicon is a silicon and iron alloy. Silicon serves as a potent oxidant in steel. Used mainly in particular steels and in mild steel in limited quantities. Ferro silicon is also used to make silicon, ferrous silicon alloys that are corrosion-proof and high-temperature resistant, and silicon steel for electro motors and transformer cores.



FERRO MANGANESE

Ferro Manganese is an alloy that is used as deoxidizer for steel. This alloy contains high content of manganese. Ferro Manganese is basically a manganese and iron alloy. It has high manganese content and is used in steel products where the content of silicon needs to be managed at low levels. It is primarily used in the manufacture of flat steel, manganese-rich steel and stainless steel products for silicon manganese.

There are three types of Ferro Manganese and they are :

- Standard ferromanganese
- Medium-carbon ferromanganese
- Low-carbon ferromanganese



REFRACTORIES

HIGH ALUMINA BRICKS

It is widely used in steel metallurgical equipment such as electric furnace roof, blast furnace, furnace and non-ferrous smelting, chemical industry, cement industry, etc. High alumina brick with high refractoriness under load, good thermal shock resistance, spalling resistance, erosion resistance and other advantages, is widely used in steel metallurgical equipment such as electric furnace roof, blast furnace, furnace and non-ferrous smelting, chemical industry, cement industry, etc.

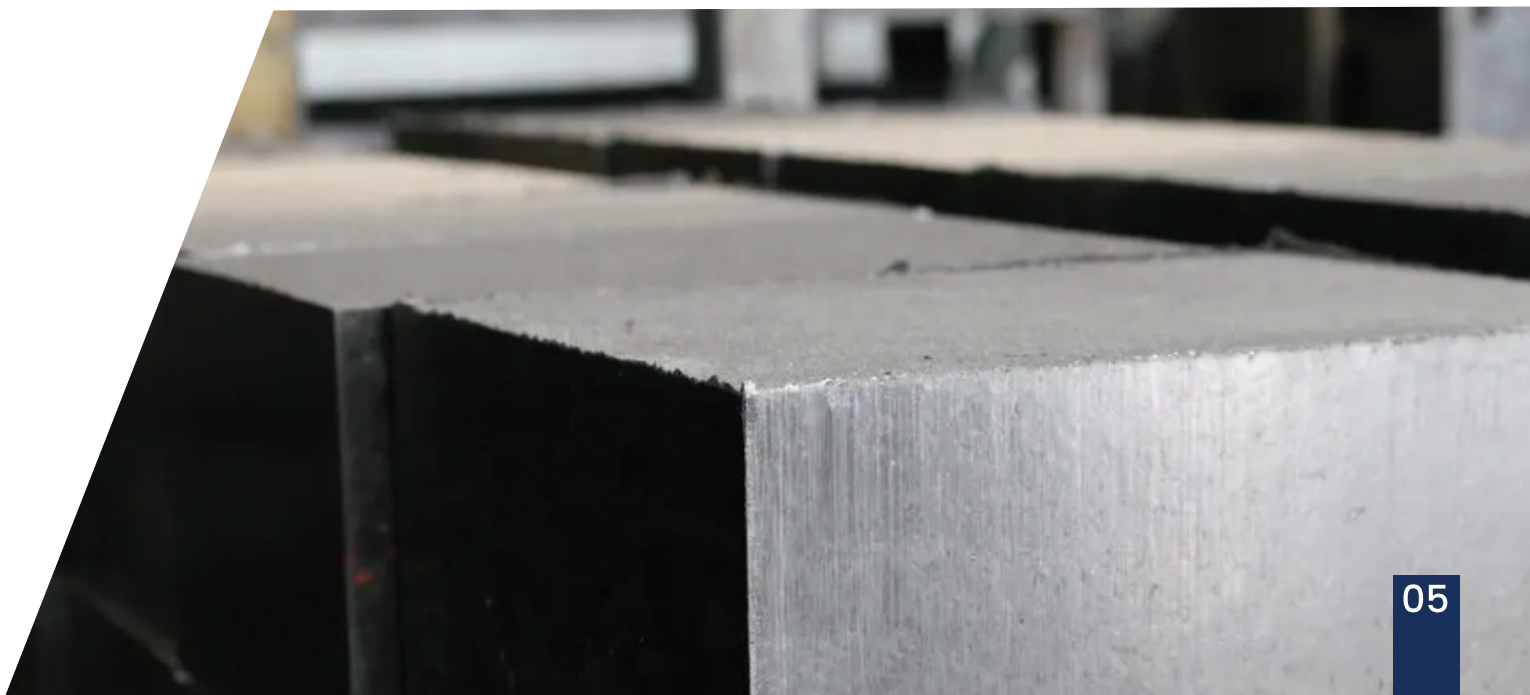
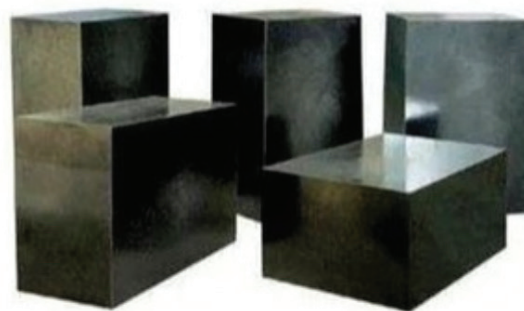




REFRACTORIES

MAGNESIA C-BRICKS

Magnesia carbon brick has excellent slag corrosion resistance, spalling resistance, high temperature strength higher characteristic, can greatly improve the service life of converter, electric furnace and ladle, widely used in the converter, electric furnace, refining ladle metallurgy equipment, etc. According to the metallurgical conditions, different parts of the ladle choose different type of magnesia carbon brick.



REFRACTORIES

ACIDIS RAMINGMASS

The ramming mass is a pre-mixed, dry, vibrated refractory material blended from selected silica particles, and it is also an indefinite refractory material used in various industrial places. It is made of refractory aggregates, binders, and additives refined by modern technology and high-quality materials. Ramming mass has perfect thermal stability, and excellent chemical stability and is easy to work with. The main purpose of ramming mass is to create a protective layer on the inside of furnaces and other thermal equipment.



TUNDISH GARNEX BOARDS

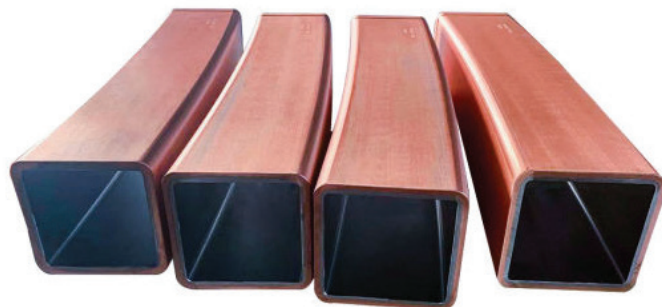
The process of continuous casting is done to provide molten steel to the mould from a vessel called tundish. This intermediate vessel is used to give a proper flow to the molten metal or alloy so that the mould gets properly filled in the copper moulds of a continuous casting process.



CONSUMABLES

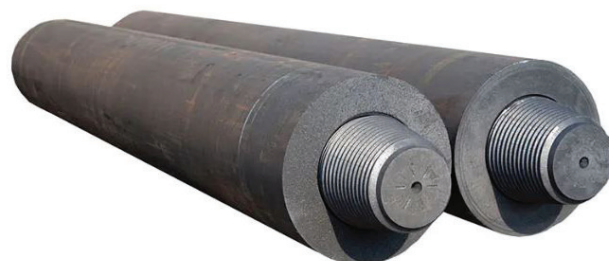
COOPER MOULD TUBE:

The copper mould tube is the core part of continuous casting machine and regarded as " heart" of it. We can offer billet, round and bloom copper mould tubes with all existing specification and design.



ELECTRODE

Graphite electrodes, widely used in electric arc furnace steel production and other smelting processes. It can be divided into RP, HP and UHP grade.





CONSUMABLES

SLIDE GATE PLATE

Slide Gate Refractory are used in ladle for controlling the liquid steel flow from Ladle to Tundish.

The models are equivalent to

- Saflow Slide Plate
- IQC Slide Plate
- 2QC Slide Plate
- 4200 Slide Plate
- 6300 Slide Plate



NOZZLES

Tundish Nozzles are an integral part of Continuous Steel Casting process. These products are instrumental in controlling the flow of Molten Steel from Tundish to Continuous Casting.





SEMI FINISHED

STEEL ROLLER

High – speed steel roll material is high in vanadium, chromium, tungsten, molybdenum and other alloy elements. The type of carbide in roll is mainly MC or M2C. Has good thermal stability, high hardness. good wear resistance and harden ability, from internal to the work roll surface layer hardness almost no change, so as to ensure the roll from out side to inside are equally good abrasion resistance.



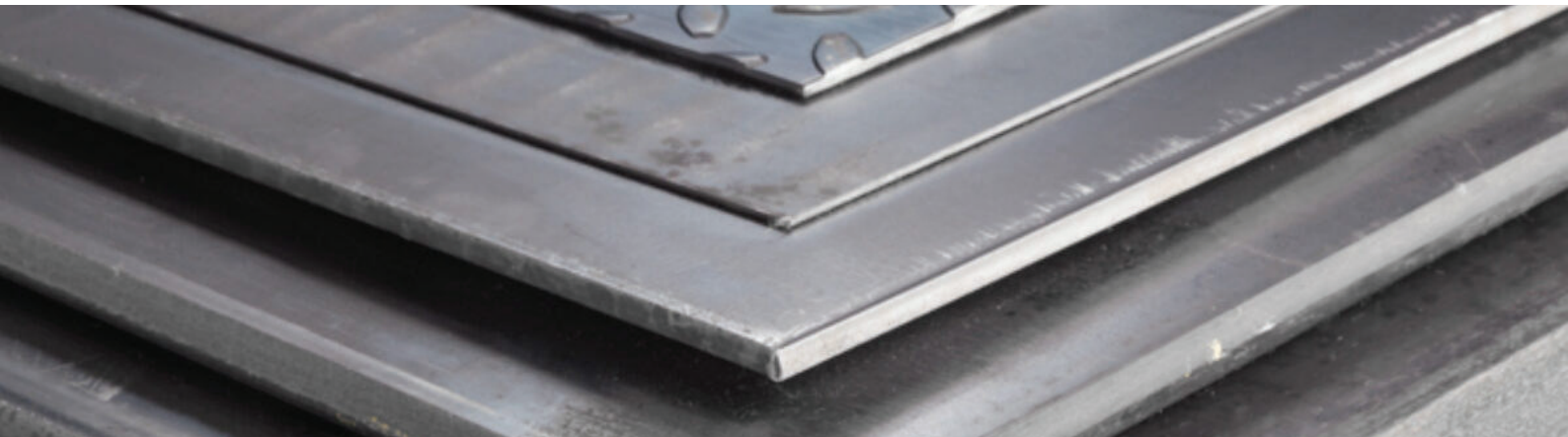
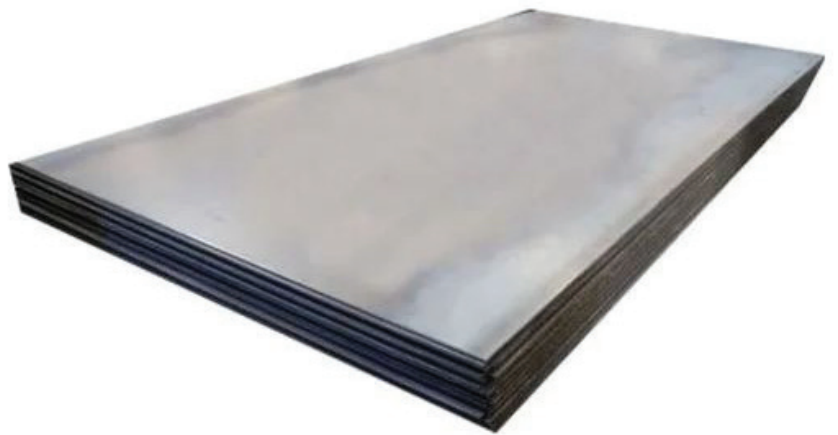
BINDING WIRE



SEMI FINISHED

STEEL PLATE

Steel plate is a plate of metal, specifically steel, that can be cut and manufactured into a more elaborate product. Steel plates come in a range of thicknesses, and can be manufactured to a length or width that you need. There are common sizes that you'll find, such as 48"x96" or 96"x120".



STEEL BILLETS

Known as being the second stage during the production of steel, steel billets are hot rolled and then used for further stages of metal casting.

Sizes:

- 12,000 × 120 × 120 mm
- 12,000 × 125 × 125 mm
- 12,000 × 130 × 130 mm



MINERALS

CARBON

Ranked among the light elements in the periodic table, carbon (C) belongs to the non-metals family which consists of elements such as oxygen (O). Carbon is found only in minute quantities in the Earth's crust. In nature, it is polymorphic and exists in the form of coal, oil, graphite, diamonds, etc.



DOLOMITE

Dolomite is a type of limestone. It is rich in magnesium carbonate and calcium carbonate. It also contains several other minerals.



FLUORSPAR





Fluorspar is the commercial name for the mineral fluorite (calcium fluoride, CaF_2). Fluorite is a colourful, widely occurring mineral that occurs globally with significant deposits in over 9,000 areas.



BAGS





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