

MASERCATA OY

"Masercata Oy"开发并获得了基于磁性激光等离子弧的新型冶金技术的专利。技术释放金属和氧气的金属氧化物不是通过燃烧 - 但直接金属回收，这大大减少了排放，特别是CO和二氧化碳。加工过程也是节能的，与经典方法相比，节省能源。为世界上第一个直接金属回收炉。

在实践中，这意味着金属氧化物是矿石或废物形式，或灰尘或泥浆形式，它们可以直接在“MAZANASU”炉处理，即使水分含量高。金属回收率高达99.5%。例如，高质量的钢铁产品可以直接从铁矿石或铝土矿渣。此外，技术允许高效回收稀土元素，如钪(Sc)。

该技术制造的金属纯无缺陷和杂质，可加工不同类型的金属，例如铁、镍、铜、铝。

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新材料已经开发出来:SCI金属结合了钢和铁的最佳性能，加上一些改进，在与磨损相关的应用中使材料使用寿命延长2 - 4倍。也可提供高强度和高硬度的材料。用铝制成的合金强度是现在的材料4倍。

这项技术可用于回收、采矿、铸造厂和钢铁厂。

“Masercata Oy” has developed and patented new metallurgical technology based on magnetic laser plasma arc. Technology releases metals and oxygen from metal oxides not by burning – but with direct metal recovery, this greatly reduces emissions, specially CO and CO2. Processing is also energy efficient, saving energy compared to classical methods. World’s first direct metal recovery furnace.

In practice this means that metal oxides are in ore or waste form, or in dust or slurry form, they can be directly processed in the “Mazanasu” furnace even with high moisture content. Metal recovery is very efficient up to 99.5%. For example high quality steel products can be made directly from iron ore or from Bauxite Residue. Additionally technology allows a highly effective way to recover Rare Earth Elements like Scandium (Sc).

Metals made with the technology are purely free of defects and impurities, different types of metals can be processed, for example Iron, Nickel, Copper, Aluminium.

New Materials have been developed: SCI metals combining the best properties of steel and iron plus some improvements resulting in 2 – 4 longer material service life in wear related applications. High strength and hardness materials are also available. With aluminium 4 times stronger alloys that normally available today can be made.

Technology can be used in recycling, mining, foundries and steel mills.