

北京金煤创业科技股份有限公司
BeJing JinMei Entrepreneur Co., Ltd.

高锰钢陶瓷复合圆锥破碎机-轧臼壁
MMC-Mn Cone Crusher-Mantle/Bowl Liner

公司简介

Company profile

北京金煤创业科技股份有限公司于2006年成立，2016 年改制为股份制公司并成功登陆新三板。公司总部坐落在中国北京中关村科技园古城基地。是集研发，生产，出口销售的互联网+新材料制造企业。

公司主营金属基陶瓷复合材料，耐磨耐热材料，冶金、矿山、水泥、燃煤热电厂设备配件等。产品：高铬陶瓷复合铸造耐磨材料，马氏体钢陶瓷复合铸造耐磨耐冲击材料及各类高锰钢陶瓷复合材料，金属基陶瓷纤维复合材料。

Beijing JinMei Entrepreneur Co., Ltd (DJM) was established in 2006, Headquarter located in Zhongguancun High-tech Park in Beijing, China. DJM was restructured into Joint-Stock company & listed on NEEQ in 2016. DJM's a research and development, production, export sales of Internet + new materials manufacturing enterprises.

DJM is focusing on Metal Matrix Ceramic Composite (MMCC) material, wear-resistant and heat-resistant material.

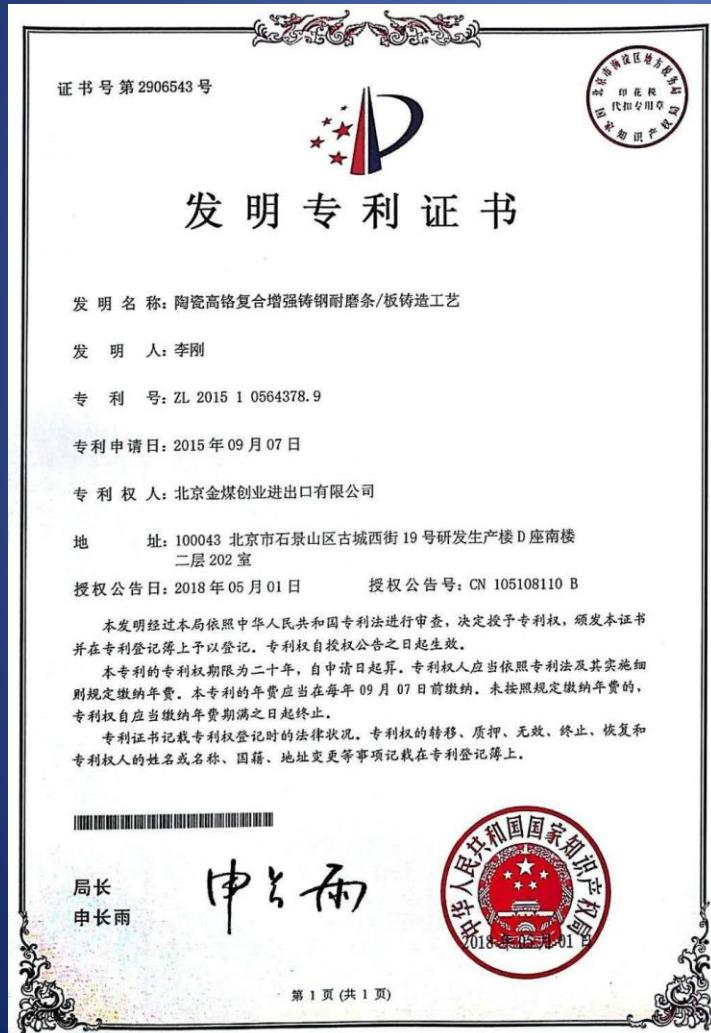
Products: High chromium cast iron ceramic composite castings, Martensite steel ceramic composite castings, high manganese steel ceramic composite castings, and Metal matrix ceramic fibre composite casting materials, ZTA ceramic mechanical parts. Products are widely used in metallurgical industry, mining, cement, Coal-fired thermal power plant as spare parts.



发明专利证书

Patent certificate

陶瓷高铬复合增强铸钢耐磨条板铸造工艺
Metal Matrix ceramic composite casting



陶瓷高锰钢复合耐磨件铸造工艺
High Mn Steel Matrix ceramic composite casting



MMC-Mn 高锰钢陶瓷复合耐磨材料

MMC-Mn (High Manganese Steel Ceramic Insert casting wearparts)

MMC-Mn (High-manganese ceramic insert casting wear-resistant material)

That is, the reinforcement phase - ceramic particles are fused and cast in the easily worn parts of metal parts with high manganese steel as the base material. The metal-ceramic composite layer is formed by the metallurgical combination of ceramic particles and casting alloy. The metallurgical bonding of ceramic particles with metal is realized by the heat of metal liquid. The hardness of ceramic-ceramic composite layer formed by ceramic particles and matrix metal shows a step distribution. In the casting engineering, alloy elements in composite ceramic materials are used to refine the grain of high-manganese steel, improve the matrix properties of high-manganese steel, give full play to the work-hardening characteristics of high-manganese steel, reduce plastic deformation, and improve the low-impact wear resistance. Combined with the high wear resistance of the ceramic material, the wear resistance of the working surface is improved, so that the wear-resistant and impact-resistant material is obtained. The life of high manganese steel ceramic composite is greatly improved.

The hardness of the High manganese steel ceramic insert composite layer is distributed in steps:

Ceramic particles hardness= HV2100

Hardness of metal around ceramic particles = 60-65HRC

Basis material=High manganese steel =Hardness HB190-220

Impact hardness of High manganese steel = HB400-500

It is suitable for use under high impact and high wear conditions

MMC-Mn 高锰钢陶瓷复合耐磨材料

即在高锰钢为基材的金属部件易磨损部位熔铸增强相-陶瓷颗粒.通过陶瓷颗粒与铸造合金的冶金结合来实现金属陶瓷复合并形成金属陶瓷复合层; 陶瓷颗粒与金属的冶金结合是通过金属液体的热量来实现的; 陶瓷颗粒与基体金属形成金属陶瓷复合层的硬度呈阶梯分布: 在浇铸工程中利用复合陶瓷材料中的合金元素细化高锰钢晶粒, 提高高锰钢基体性能, 充分发挥高锰钢的加工硬化特点, 减少塑性变形, 提高低冲击耐磨能力; 结合陶瓷材料的高耐磨特性, 提高工作面的抗磨性能, 从而获得即耐磨且抗冲击的耐磨材料。高锰钢陶瓷复合材料的寿命大幅度提高。

高锰钢陶瓷复合层的硬度呈阶梯分布:

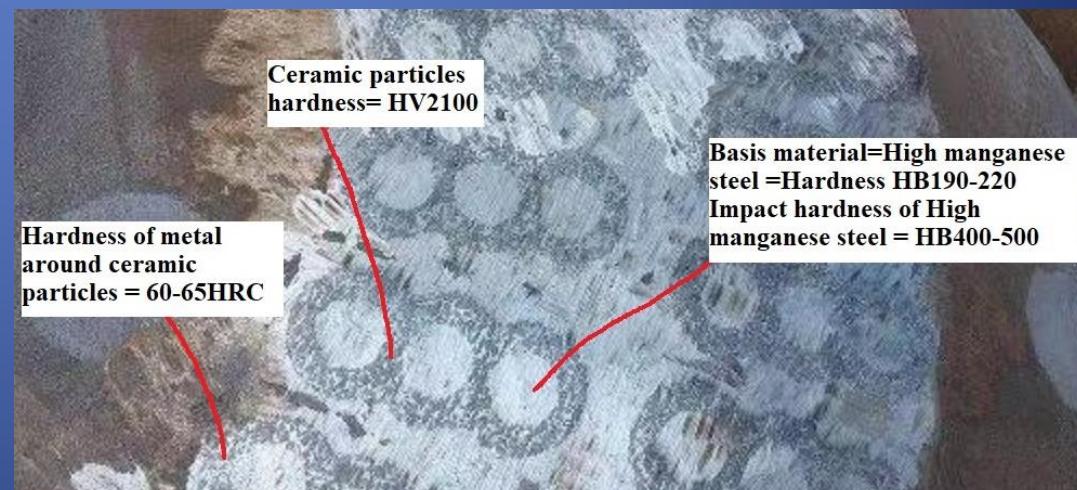
陶瓷颗粒硬度= HV2100

陶瓷颗粒周围的金属硬度= 60-65HRC

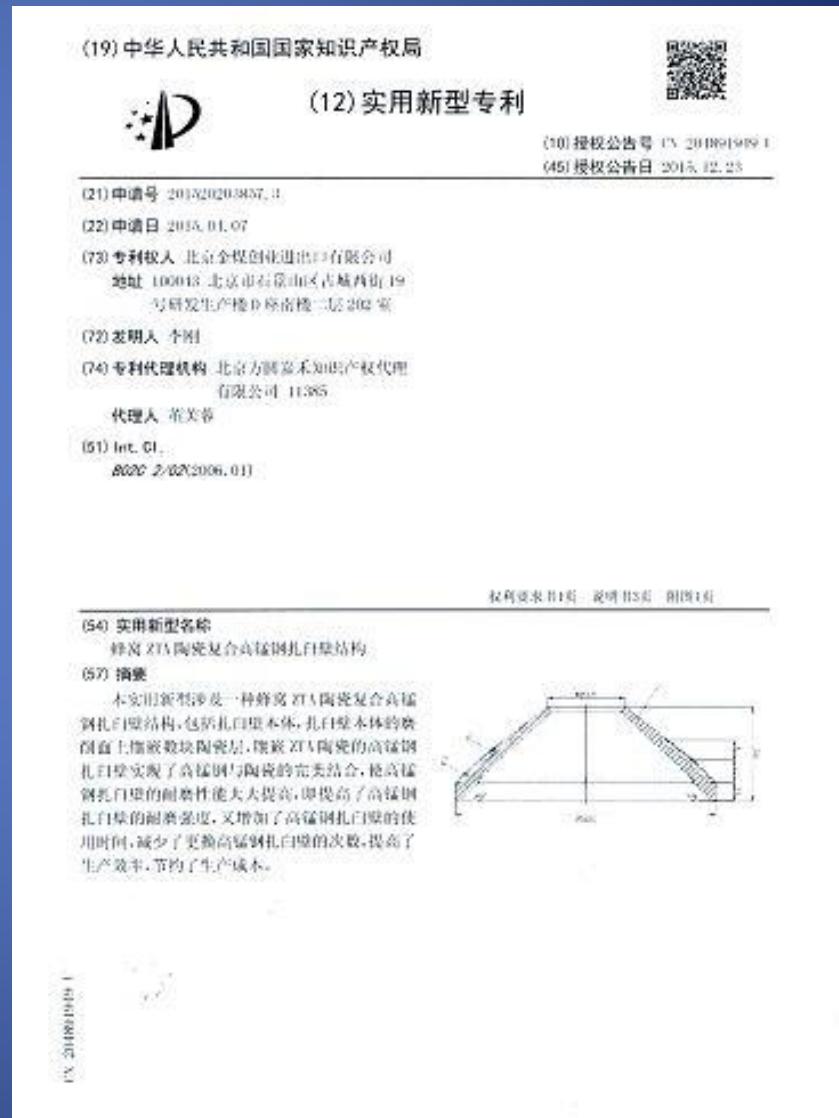
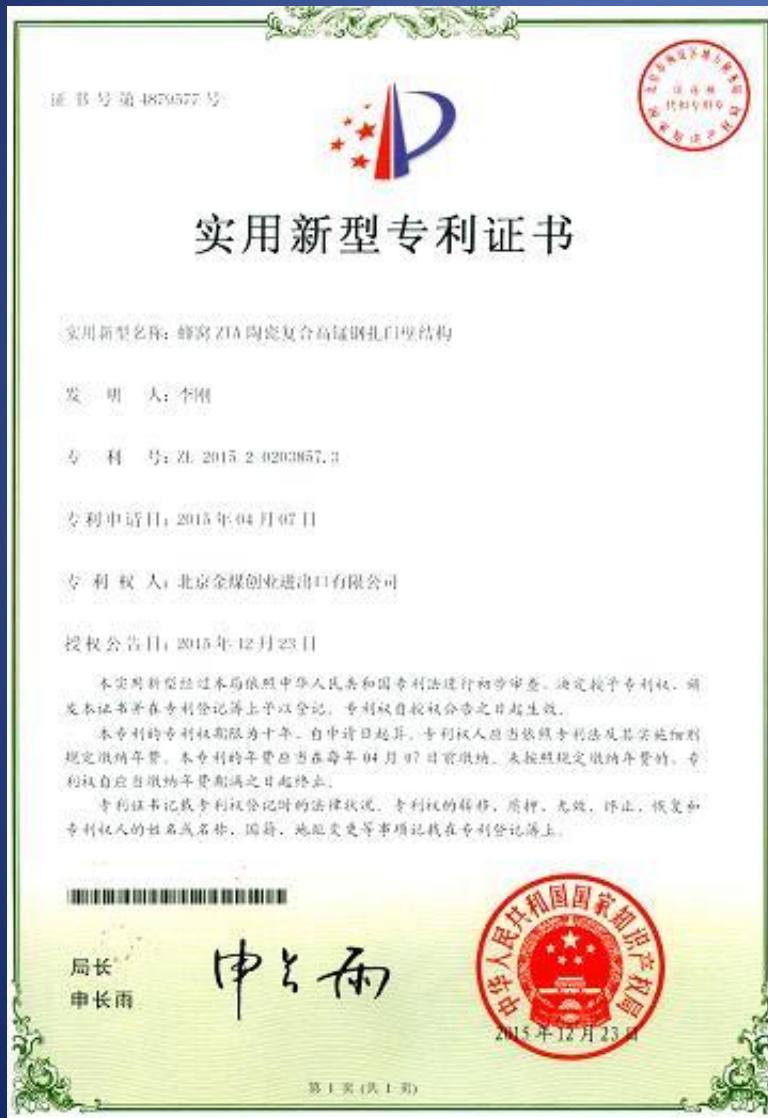
基材=高锰钢=硬度HB190-220

高锰钢冲击硬度= HB400-500

适合在高冲击、高磨损条件下使用



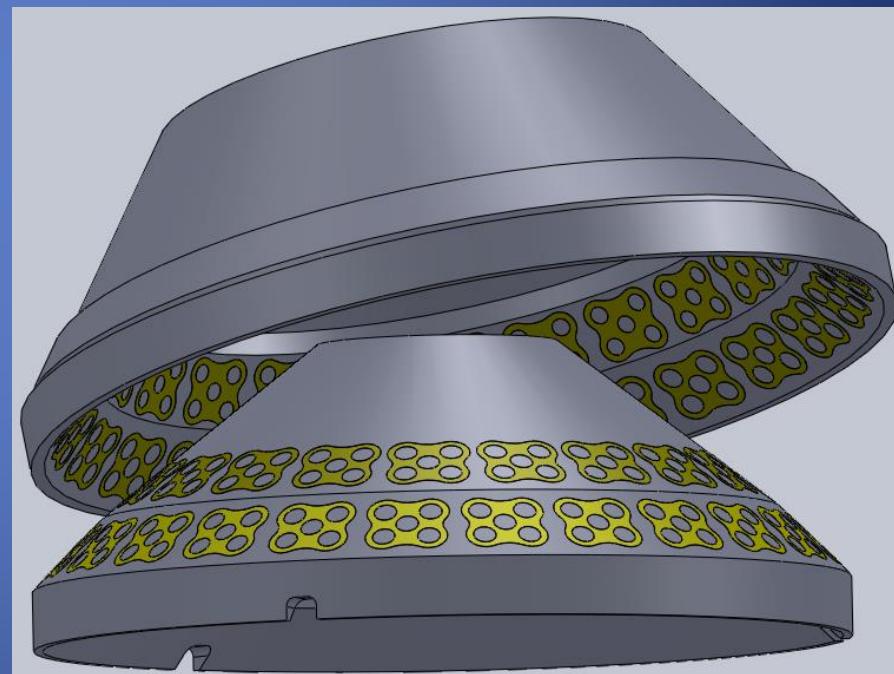
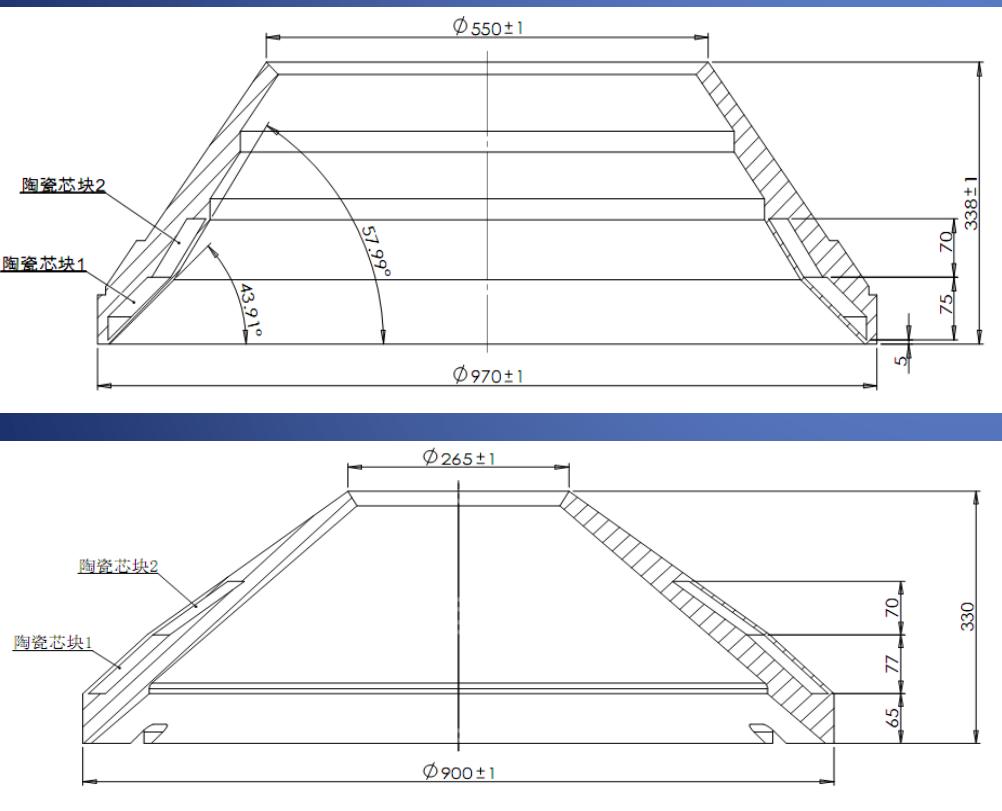
专利技术证书 (孔臼壁) Patent certificate (Cone/Mantle)



高锰钢陶瓷复合破碎壁/臼壁

High Mn Steel Matrix ceramic composite Cone/Mantle

DJM adopts composites of high-manganese steel substrate and ceramic , namely, the base material of the cone and mantle is high Mn steel, while the cast ceramic matrix embedded with high wear resistance shaped ribs, increase the wear resistance ability while maintaining the original impact resistance of high manganese steel.



陶瓷布局及安装

installation and use effect of Ceramic core for ceramic insert casting Mantle / Bowl



high manganese steel ceramic
insert casting Cone

19:38 ✓



19:39

high manganese steel ceramic insert
casting mantle

19:44 ✓✓



19:47 ✓✓

高锰钢陶瓷复合破碎壁/臼壁
High Mn Steel Matrix ceramic composite Cone/Mantle



高锰钢陶瓷复合破碎壁/臼壁
High Mn Steel Matrix ceramic composite Cone/Mantle



高锰钢陶瓷复合破碎壁/臼壁-使用实例

High Mn Steel Matrix ceramic composite Cone/Mantle

圆锥破碎机GP300（二破）臼壁/破碎壁使用实例

物料- 铁矿石-莫氏硬度6.5 进料粒度= 50-300mm

磨损形式=高冲击碾压磨损

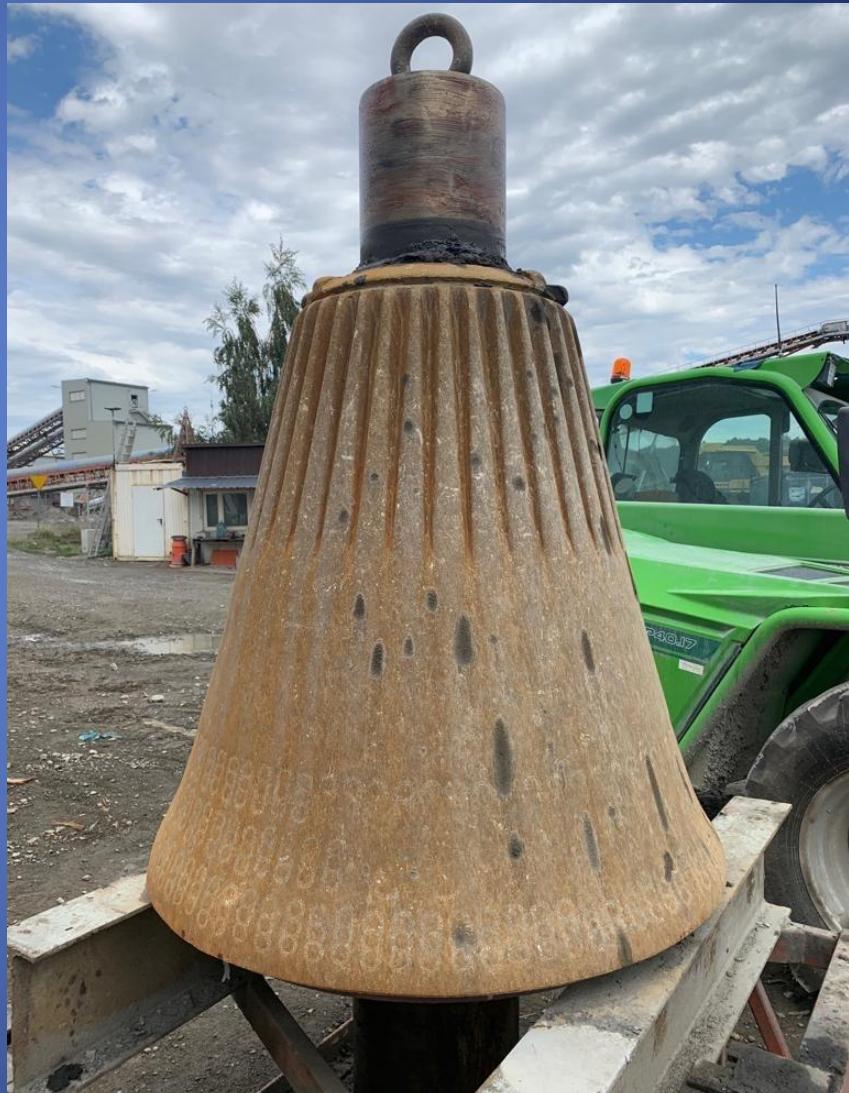
高锰钢臼壁 使用寿命=22天 (440hour)

高锰钢陶瓷复合臼壁 使用寿命=45天 (900hour)











谢谢！ / Thanks !

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