



ZHONGRUN: EMBRACING STREAMS, ENRICHING WORLDS



马鞍山市中润智能装备有限公司

MA'ANSHAN ZHONGRUN INTELLIGENT EQUIPMENT CO., LTD

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工程机械高端 合金耐磨铸件服务商 High-End Alloy Wear-Resistant Castings

High-End Alloy Wear-Resistant Castings Supplier for Engineering Machinery



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马鞍山市中润智能装备有限公司由马鞍山市庄芝耐磨合金有限公司 发展沿革成立于2021年3月新成立的一家专业生产工程机械高端合金耐 磨铸件的国家高新技术企业、安徽省科技型中小企业。

公司位于马鞍山市博望区新市工业园,建筑面积17000平方米,注 册资金2180万元,现有员工76人。拥有国内先进的垂直分型无箱自动射 压造型线、消失模铸造生产线和水平高压造型共三条生产线,使用节能 高效熔炼炉,采用全自动自身预热式燃气炉热处理生产线,多年热处理 经验积累,形成了一套完善的热处理工艺"秘笈",产品不仅淬透性 好、均匀,而且消除淬火应力导致的变形。公司工序流程完整,设备先 进,在生产高端合金耐磨铸件方面具有丰富的生产经验,年产耐磨铸件 2万吨。





Ma'anshan Zhongrun Intelligent Equipment Co., Ltd., evolved from Ma'anshan Zhuangzhi Wear-Resistant Alloy Co., Ltd., is a National High-Tech Enterprise and Anhui Provincial Sci-Tech SME specializing in manufacturing high-end alloy wear-resistant castings for engineering machinery, established in March 2021.

Zhongrun Intelligent Equipment is situated in Xinshi Industrial Park, Bowang District, Ma'anshan City, with a built-up area of 17,000 square meters and registered capital of RMB 21.8 million. Currently employing 76 staff, the company operates three advanced production lines: a vertical flaskless automatic shooting and squeeze molding line, a lost foam casting line, and a horizontal high-pressure molding line. Leveraging decades of heat treatment expertise, we have developed proprietary heat treatment techniques that ensure exceptional hardenability uniformity while eliminating quenching-induced deformation. Equipped with streamlined production processes and state-of-the-art facilities, the company specializes in high-end alloy wear-resistant castings, boasting an annual production capacity of 20,000 metric tons.

确保高质量生产 是企业生存之道

Precision Manufacturing – The Lifeline of Industrial Survival

公司专注于工程机械耐磨合金产品研制、生产和销售,聚集了一批高素质的专业研发人员,拥有高 级工程师2人、常年技术顾问2人。公司与安徽工业大学、安徽工程大学等高校有着多年的产学研合作、公 司技术中心是市级企业技术中心,配备了进口ARL2460型直读光谱仪、光学金相显微镜、型砂检测仪等国 内外先进的检测仪器设备,具有较强的创新设计能力,特别是耐磨衬板产品与行业同类产品相比更具有 高耐磨、长寿命、尺寸稳定优势。

The company specializes in the R&D, production, and sales of wear-resistant alloy products for construction machinery. It has assembled a high-caliber R&D team comprising 2 senior engineers and 2 long-term technical consultants. Through years of industry-university-research collaboration with institutions such as Anhui University of Technology and Anhui Polytechnic University, the company's technical center—certified as a municipal-level enterprise technology center—is equipped with advanced domestic and imported testing instruments, including an ARL2460 optical emission spectrometer, metallographic microscopes, and sand testing equipment. The center demonstrates robust innovative design capabilities, particularly in wear-resistant liner plates that exhibit superior abrasion resistance, extended service life, and dimensional stability compared to industry counterparts.





INNOVATION **CAPABILITIES** 创新能力

基于耐磨铸件智造工业互联网平台,以智能化设备、ERP、MES管理系统应用为核心,结合车间物 流调度系统等先进技术,建立起适应高耐磨铸件产品设计、智能化加工、自动化配送和质量检测综合自 动化集成应用环境,在管控订单、计划、生产现场质量、库存、供应链、财务、决策支持等方面实现了 整套流程的协同作业的管理,解决了企业的现场数据采集、在制品管理、产品批次管理以及设备管理的 各种疑难问题。

Built on the Intelligent Manufacturing Industrial Internet Platform for wearresistant castings, the system integrates core technologies including intelligent equipment, ERP, and MES management systems, combined with advanced shop-floor logistics scheduling systems. This establishes a comprehensive automated application environment tailored for highwear-resistant casting product design, intelligent processing, automated distribution, and quality inspection. The platform enables end-to-end collaborative management across order control, production planning, inprocess quality monitoring, inventory management, supply chain coordination, financial integration, and decision support. It effectively resolves critical challenges such as real-time field data acquisition, workin-progress (WIP) tracking, product batch traceability, and equipment lifecycle management.





高动态性







低成本





ADVANCED EQUIPMENT 先进设备



节能高效中频炉

Energy-Efficient Medium Frequency Furnace



消失模生产线 Lost Foam Production Line

技术中心检测设备 Technical Center Testing Equipment



垂直分型无箱自动射压造型线



浸漆生产线 Dip Coating Line



CORPORATE **ACCOLADES** 企业荣誉

公司通过了质量、环境、职业健康安全管理体系认证,参与《冶金设备制造通用技术条件 钢铸件》 等两项国家行业标准制定。截止目前,公司已获授权发明专利3件和实用新型专利15件。

The company has obtained triple certification in Quality Management System (ISO 9001), Environmental Management System (ISO 14001), and Occupational Health & Safety Management System (ISO 45001). It has participated in formulating two national industry standards, including "General Technical Requirements for Metallurgical Equipment Manufacturing – Steel Castings" (YB/T 036.2). To date, the company holds 3 authorized invention patents and 15 utility model patents.



















National High-Tech Enterprise Certification



Anhui Provincial Specialized and Sophisticated SME (Small and Medium Enterprise)







产品特点 Products Features

长期热处理经验积累,形成了一套完善的热处理工艺"秘笈",生产的耐磨产品不仅淬透性好、均匀,而且消除淬火应力导致的变形,耐磨铸件产品在国内同行业具有良好地口碑。

Leveraging decades of heat treatment expertise, we have developed proprietary heat treatment techniques that ensure exceptional hardenability and uniformity while eliminating quenching—induced deformation. These technical advantages have earned strong industry recognition among domestic counterparts, particularly in mining and cement equipment applications.







沥青摊铺机螺旋叶片, 用于道路路面沥青摊铺, 为提高摊铺机螺旋叶片使用寿命。

Asphalt paver auger flights are manufactured with wear–resistant alloy for bituminous pavement laying operations. The spiral components are precision–cast to enhance service life under high–wear operating conditions.



技术要求 Technical Specifications

硬度≥58HRC、冲击吸收能≥3.0J、抗压强度 ≥120KN。

Hardness: \geqslant 58 HRC; Impact Absorption Energy: \geqslant 3.0 J; Compressive Strength: \geqslant 120 KN



外双尺寸 Dimensional Requirements

螺旋节距280mm, 螺旋变形≤1mm。 Spiral Pitch: 280 mm, Spiral Deformation Tolerance: ≤1 mm.



化学成分创新 Material Innovation

化学成分由普通高铬铸铁材质调整为Cr20+V、Mo合金化。

Chemical composition upgraded from conventional high-chromium cast iron to Cr20+V-Mo alloyed material



铸造工艺创新 Process Innovation

采用STMMA料制模片和漏包浇注,优化底注式组型工艺,降低了叶片夹渣、缩松等缺陷,叶片组织更加致密。

Adopted STMMA (Expandable Polystyrene + Polymethyl Methacrylate) material for pattern making and tundish pouring. Optimized bottom—gating mold assembly process reduces slag inclusions, shrinkage porosity, and enhances microstructure compactness.

产品展示

Product Showcase

产品材质 Material Grades

KmTBCr20、KmTBCr26、低合金钢。 KmTBCr20、KmTBCr26、Low-Alloy Steel.

Product Dimensions

螺旋叶片根据摊铺机的型号不同,尺寸也不同,通常直径300mm以上,壁厚12~15mm。

Auger flight dimensions vary according to paver models, typically featuring:Diameter: >300 mm; Wall Thickness: 12-15 mm.











产品展示 Product Showcase





针对盾构施工作业中面对复杂不确定地质层,我公司与国内高校合作生产的盾构机施工耐磨刀具具有高耐磨高韧性,适用于顶管机、盾构机、TBM。产品应用于中铁隧道股份有限公司。

Engineered for complex and unpredictable geological formations in tunneling operations, these wear–resistant cutters are co–developed with domestic universities. Featuring exceptional wear resistance (\geq 58 HRC) and impact toughness (\geq 15 J/cm²), the tools are compatible with pipe jacking machines, shield machines, and tunnel boring machines (TBMs). This solution has been implemented in China Railway Tunnel Group Co., Ltd. for metro construction projects.



产品材质 Material Grades

H13改良版、DC53、LD等冷做模具钢和热做模具钢。

H13 Modified; DC53; LD(Cold work tool steels & Hot work tool steels)





GLOBAL OPERATIONS NETWORK 全球销售网络



立足中国 赋能全球

Anchored in China, Powering Worldwide Foundry Solutions













CORPORATE SOCIAL RESPONSIBILITY 社会责任

《外面川 》 溪首为

中润智能公司从一个名不经传的小企业发展到当地颇有影响的国家高新技术企业,中润智能不仅有创新发展的基因,还有着纳百川的胸襟,它汇聚着点点滴滴,凝聚着中润智能人的情怀,蓄势奋飞。

虚怀若谷是中润智能人的秉性。公司自觉把客户对产品的高标准、严要求通过制度形成内部管理要求,并且一以贯之,在长期合作中,不仅增进了彼此间的深厚友谊、信任和情感,也见证了彼此的成长和企业的发展。多年来,企业一直秉承着诚实经营,尊重客户的每一份建议,以优质的产品和服务,更好地满足需求,这不仅是企业与企业间诚信合作的纽带,更是企业回报社会的最佳方式。

From a modest local enterprise to a nationally recognized high—tech entity, Zhongrun Intelligent has embedded innovation in its DNA while maintaining inclusive collaboration. The company systematically aggregates industrial expertise, embodies the dedication of its workforce, and remains poised for global advancement.

Open-mindedness defines our corporate ethos. Through institutionalizing clients' exacting standards into operational protocols, we have consistently forged enduring partnerships. These strategic alliances have not only cultivated mutual trust and professional camaraderie but also catalyzed shared growth across supply chains.

For decades, our integrity—driven operations have transformed customer feedback into continuous improvement. By delivering premium casting solutions that exceed specifications, we establish ethical business linkages while fulfilling our societal commitment through industrial excellence.

