



马鞍山市永兴新材料科技有限公司
Maanshan Yongxing New Material Technology Co., Ltd

马鞍山市永兴新材料科技有限公司

Maanshan Yongxing New Material Technology Co., Ltd

邮箱: 14746823@qq.com
E-mail: yxgrindingball@126.com

手机: 13685550000(微信同号)
Mobile/WeChat: +86-13685550000

地址: 安徽省马鞍山市雨山经开区永进路68号
Address: No. 68, Yongjin Road, Yushan Jingkai District, Maanshan City, Anhui Province.



目录

1

公司概览

- 01 公司简介
- 03 专业资质

产品生产

- 产品系列 04
- 生产工艺 13
- 自动化生产设备 15
- 检测设备 17

2

3

客户群体

- 18 服务行业
- 19 合作伙伴

企业愿景

- 发展规划 20

4

DIRECTORY

1

COMPANY OVERVIEW

- 01 COMPANY PROFILE
- 03 PROFESSIONAL CERTIFICATES

PRODUCT PRODUCTION

- PRODUCT SERIES 04
- PROPDUCT PROCESS 13
- AUTOMATIC PRODUCT EQUIPMENT 15
- TESTING DEVICE 17

2

3

CUSTOMER GROUPS

- 18 INDUSTRY SERVED
- 19 PARTNER

CORPORATE VISION

- DEVELOPMENT PLANS 20

4



公司简介

马鞍山市永兴新材料科技有限公司是一家专业生产精密铸件、耐热钢、铬系列铸球、铸段的制造商。经过十几年的深耕，公司现已发展成为具有年产7万吨的大型铸造企业。

公司规模：公司注册资金3000万元，占地面积3.8万平方米，建筑面积达2.4万平方米。公司控股单位马鞍山市巨龙玻纤复合材料有限公司坐落于天门大道1789号，占地面积50亩，拥有标准化厂房20000平方米，铸造产能3万吨，生产耐磨钢球，工程机械配件，汽车配件等。

生产技术：新式的标准厂房、先进的生产检测设备、完善的质量保证体系、良好的生产环境，为高性能耐磨铸造产品打下坚实的基础。

产品性能与用途：公司生产的铬合金系列铸球、铸锻及其他铸件等产品，具有耐磨、耐腐蚀等特点，性能稳定，工艺成熟，广泛应用于矿山、建材、火力发电、水煤浆工程以及球团厂等行业。

发展前景：公司现拥有建材、冶金、采矿、电力、磁性材料、非金属矿深加工等行业的众多用户，产品畅销全球。

资质荣誉：公司已经通过ISO9001质量管理体系和ISO14001环境管理体系认证及职业健康安全管理体系。

经营理念：“永兴铸造、铸造精品”是永兴公司全体员工矢志不渝的理念。选择“永兴”，体现双赢！

我们的目标：永兴人将不断开拓创新、永攀高峰，努力打造质量有口皆碑，服务专业周到，值得信赖的品牌形象。

Company Profile

Maanshan Yongxing New Material Technology Co., Ltd. is a professional manufacturer of precision castings, heat-resistant steel, chromium series casting balls and casting cylpebs. After more than ten years of deep cultivation, the company has now developed into a large-scale foundry enterprise with an annual output of 70,000 tons.

Company scale: the registered capital of the company is 30 million yuan, and the company covers an area of 38,000 square meters and its construction area reaches 24,000 square meters. The company's holding company, Maanshan Julong Glass Fiber Composite Material Co., Ltd., which can produce wear-resistant steel balls, engineering machinery parts, auto parts, is located at No. 1789, Tianmen Avenue, covering an area of 8.3 acres, with a standardized workshop of 20,000 square meters and casting capacity of 30,000 tons.

Production technique: The company boasts new standard workshop, advanced production and testing equipment, perfect quality assurance system, good production environment, which lay a solid foundation for high-performance wear-resistant casting products.

Properties and use of products: the company's production of chrome alloy series casting balls, casting cylpebs and other casting products, with characteristics of stable performance, mature technology, such as wear resistance, corrosion resistance, is widely used in mining, building materials, thermal power generation, coal water slurry engineering and pelletizing factories and other industries.

Development prospects: The company now has many customers in building materials, metallurgy, mining, electric power, magnetic materials, non-metallic ore deep processing and other industries, and its products sell well all over the world.

Qualification honor: The company has passed ISO9001 quality management system and ISO14001 environmental management system certification and occupational health and safety management system.

Business philosophy: "Yongxing casting, casting fine products" is the unswerving concept of all staffs of Yongxing company. Choose "Yongxing" to reflect a win-win situation!

Our goal: Yongxing people will continue to innovate, climb the peak forever, and strive to create a brand image with good reputation, professional and thoughtful service and trustworthy.

专业资质 Professional qualifications



ISO9001质量管理体系认证
Quality Management System Certificate



ISO14001环境管理体系认证
Environmental Management System Certificate

GB/T45001职业健康安全管理体系认证
Occupational Health and Safety Management System Certificate



产品展示 Product Display

钢球 Steel balls



钢段 Steel segments



主打产品一 The first major product

高、低铬合金铸球 High and Low Chromium Cast Grinding Balls

工艺成熟,性能稳定,广泛被人们所接受。热处理的改进(油淬+余热空气等温热处理),使产品质量更上一个台阶,缩小了表部与心部的硬度差,大大提高了产品的韧性。机械化生产使产品表面更加光洁,组织结构更加细腻。

Our products are highly praised for the mature technology and stable performance. The improvement of heat treatment (oil quenching + waste heat air isothermal heat treatment) has brought the product quality to a higher level, narrowed the hardness difference between the surface and the core, and greatly improved the toughness of the product. Mechanized production makes the product surface smoother and the organizational structure more delicate.

化学成分: Chemical Composition(%)

名称 Name	牌号 Designation	化学成分 Chemical Composition (%)							
		C	Si	Mn	Cr	P	S	Mo	Al
低铬合金铸球 Low Chromium Cast Grinding Ball	ZQCr2	2.0-3.2	≤1.2	≤1.0	≥1.0	≤0.1	≤0.06	微量	微量
		Cu	Ni	Nb	Ti	Zr	V	B	Mg
		微量	微量	微量	微量	微量	微量	微量	微量
普通高铬球 Popular Grade	ZQCr12	2.0-3.2	0.3-1.2	0.3-1.0	≥10.0	≤0.1	≤0.06	微量	微量
		Cu	Ni	Nb	Ti	Zr	V	B	Mg
		微量	微量	微量	微量	微量	微量	微量	微量
特殊高铬球 Special Grade	ZQCr15	如需调整化学成分或增加其他合金元素, 另外以合同方式约定价格 Any need to adjust chemical composition or to add alloyed elements, the price would be agreed according to the contract							
	ZQCr20								
	ZQCr26								

机械性能 Mechanical Properties of Products

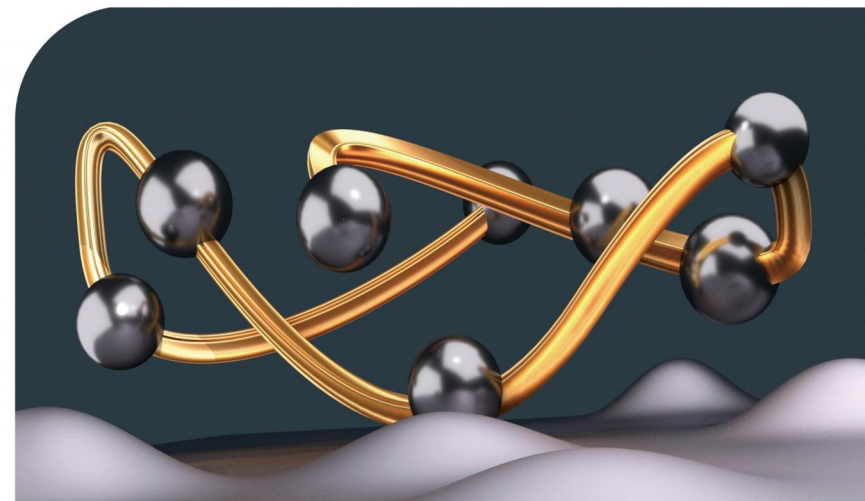
名称 Name	牌号 Designation	表面硬度 (HRC)	冲击值 ak J/cm ²	金相组织 Microstructure	落球冲击疲劳寿命 Times of Falling Balls	
低铬合金铸球 Low Chromium Cast Grinding Ball	ZQCr2	≥45	≥2.0	P+C	≥8000	
普通高铬球 Popular Grade	ZQCr12	58-66	≥3.0	M+C	≤φ80	≥15000
					≥φ80	≥10000

C-碳化物 Carbide M- 马氏体 Martensite

注:以上产品如需调整化学成分或增加其他合金元素, 另外以合同方式约定价格。化学成分偏差按 GB222-84 规定执行。
Note: Any need to adjust chemical composition or to add alloyed elements, the price would be agreed according to the contract. Chemical composition departure according to GB222-84.

产品规格 Specification

规格(mm) Specification	每只重量(kg) Weight of Each Ball	每吨个数(只) pcs/ton
φ30	0.110	9091
φ40	0.257	3891
φ50	0.500	2000
φ60	0.867	1153
φ70	1.370	729
φ80	2.050	487
φ90	2.900	345
φ100	4.000	250
φ110	5.300	188
φ120	6.800	147
φ125	7.750	129
φ130	8.740	114



主打产品二 The second main product

高、低铬合金微球 High and Low Chromium Alloyed Micro-Balls

工艺成熟,性能稳定,广泛被人们所接受。热处理的改进(油淬+余热空气等温热处理),使产品质量更上一个台阶,缩小了表部与心部的硬度差,大大提高了产品的韧性。机械化生产使产品表面更加光洁,组织结构更加细腻。

Our products are highly praised for the mature technology and stable performance. The improvement of heat treatment (oil quenching + waste heat air isothermal heat treatment) has brought the product quality to a higher level, narrowed the hardness difference between the surface and the core, and greatly improved the toughness of the product. Mechanized production makes the product surface smoother and the organizational structure more delicate.

化学成分 Chemical Composition (%)

名称 Name	C	Si	Mn	Cr	P	S	Mo	Al
高铬合金微球 High Chromium Alloyed Micro-Balls	2.0-3.3	0.3-1.2	0.3-1.0	≥10.0	≤0.1	≤0.06	微量	微量
	Cu	Ni	Nb	Ti	Zr	V	B	Mg
	微量	微量	微量	微量	微量	微量	微量	微量
低铬合金微球 Low Chromium Alloyed Micro-Balls	C	Si	Mn	Cr	P	S	Mo	Al
	2.0-3.3	≤1.2	≤1.0	≥1.0	≤0.1	≤0.06	微量	微量
	Cu	Ni	Nb	Ti	Zr	V	B	Mg
	微量	微量	微量	微量	微量	微量	微量	微量

机械性能 Mechanical Properties of Products

名称 Name	金相组织 Microstructure	表面硬度(HRC)
高铬合金微球 High Cr Alloyed	M+C	58-66
低铬合金微球 Low Cr Alloyed	P+C	≥45
C-碳化物 Carbide	P-珠光体 Pearlite	M-马氏体 Martensite

产品规格 Specification

φ8	φ10	φ12.7	φ15	φ17	φ20	φ25
----	-----	-------	-----	-----	-----	-----

注:以上产品如需调整化学成分或增加其他合金元素,另外以合同方式约定价格。化学成分偏差按 GB222 - 84规定执行。
Note: Any need to adjust chemical composition or to add alloyed elements, the price would be agreed according to the contract. Chemical composition departure according to GB222- 84.

主打产品三 The third main product

高、低铬合金铸段 High and low chromium alloy casting section

工艺成熟,性能稳定,广泛被人们所接受。热处理的改进(油淬+余热空气等温热处理),使产品质量更上一个台阶,缩小了表部与心部的硬度差,大大提高了产品的韧性。机械化生产使产品表面更加光洁,组织结构更加细腻。

Our products are highly praised for the mature technology and stable performance. The improvement of heat treatment (oil quenching + waste heat air isothermal heat treatment) has brought the product quality to a higher level, narrowed the hardness difference between the surface and the core, and greatly improved the toughness of the product. Mechanized production makes the product surface smoother and the organizational structure more delicate.

化学成分 Chemical Composition (%)

名称 Name	C	Si	Mn	Cr	P	S	Mo	Al
高铬合金铸段 High chromium alloy cylpebs	2.0-3.3	0.3-1.2	0.3-1.0	≥10.0	≤0.1	≤0.06	微量	微量
	Cu	Ni	Nb	Ti	Zr	V	B	Mg
	微量	微量	微量	微量	微量	微量	微量	微量
低铬合金铸段 Low chromium alloy cylpebs	C	Si	Mn	Cr	P	S	Mo	Al
	2.0-3.5	1.0-1.8	0.3-0.8	≥1.0	≤0.1	≤0.06	微量	微量
	Cu	Ni	Nb	Ti	Zr	V	B	Mg
	微量	微量	微量	微量	微量	微量	微量	微量

机械性能 Mechanical Properties of Products

名称 Name	金相组织 Microstructure	表面硬度(HRC)
高铬合金铸段 High chromium alloy cylpebs	M+C	58-66
低铬合金铸段 Low chromium alloy cylpebs	P+C	45-50
C-碳化物 Carbide	P-珠光体 Pearlite	M-马氏体 Martensite

产品规格 Specification

高铬合金铸段 High chromium alloy cylpebs	φ18类	φ20类	φ25类	φ30类	φ35类	φ40-50类
低铬合金铸段 Low chromium alloy cylpebs	φ18类	φ20类	φ25类	φ30类	φ35类	φ40-50类

注:以上产品如需调整化学成分或增加其他合金元素,另外以合同方式约定价格。化学成分偏差按 GB222 - 84规定执行。
Note: Any need to adjust chemical composition or to add alloyed elements, the price would be agreed according to the contract. Chemical composition departure according to GB222- 84.

主打产品四 The fourth main product

工艺成熟,性能稳定,广泛被人们所接受。热处理的改进(油淬+余热空气等温热处理),使产品质量更上一个台阶,缩小了表部与心部的硬度差,大大提高了产品的韧性。机械化生产使产品表面更加光洁,组织结构更加细腻。

Our products are highly praised for the mature technology and stable performance. The improvement of heat treatment (oil quenching + waste heat air isothermal heat treatment) has brought the product quality to a higher level, narrowed the hardness difference between the surface and the core, and greatly improved the toughness of the product. Mechanized production makes the product surface smoother and the organizational structure more delicate.

高、低铬合金微段 High and low chromium alloyed Micro cylpebs

化学成分 Chemical Composition (%)

名称 Name	C	Si	Mn	Cr	P	S	Mo、Al、Cu、Ni、Nb、Ti、Zr、V、B、Mg
高铬合金微段 High chromium alloy micro cylpebs	2.0-3.3	0.3-1.2	0.3-1.0	≥10.0	≤0.1	≤0.06	微量
低铬合金微段 Low chromium alloy micro cylpebs	2.1-3.5	1.0-1.8	0.3-1.0	≥1.0	≤0.1	≤0.06	微量

机械性能 Mechanical Properties of Products

名称 Name	金相组织 Microstructure	表面硬度(HRC)
高铬合金微段 High chromium alloy micro cylpebs	M+C	58-66
低铬合金微段 Low chromium alloy micro cylpebs	P+C	45-50
C-碳化物 Carbide	P-珠光体 Pearlite	M-马氏体 Martensite

产品规格 Specification

高铬合金微段 High Chromium Alloyed micro cylpebs	φ8类	φ10类	φ12类	φ14类	φ16类
低铬合金微段 Low Chromium Alloyed micro cylpebs	φ8类	φ10类	φ12类	φ14类	φ16类

注:以上产品如需调整化学成分或增加其他合金元素,另外以合同方式约定价格。化学成分偏差按GB222-84规定执行。
Note: Any need to adjust chemical composition or add alloyed elements, the price would be agreed according to the contract. Chemical composition departure according to GB222-84.

主打产品五 The fifth main product

工艺成熟,性能稳定,广泛被人们所接受。热处理的改进(油淬+余热空气等温热处理),使产品质量更上一个台阶,缩小了表部与心部的硬度差,大大提高了产品的韧性。机械化生产使产品表面更加光洁,组织结构更加细腻。

Our products are highly praised for the mature technology and stable performance. The improvement of heat treatment (oil quenching + waste heat air isothermal heat treatment) has brought the product quality to a higher level, narrowed the hardness difference between the surface and the core, and greatly improved the toughness of the product. Mechanized production makes the product surface smoother and the organizational structure more delicate.

多元合金铸球 Multi-alloy casting balls

化学成分 Chemical Composition (%)

名称 Name	化学成分 Chemical Composition (%)							
	C	Si	Mn	Cr	P	S	Ni	Nb
多元合金铸球 Multi-alloy casting balls	2.0-3.3	0.3-1.2	0.3-1.0	3.0-5.5	≤0.1	≤0.06	微量	微量
	Mo	Cu	Ti	Zr	V	B	Al	Mg
	微量	微量	微量	微量	微量	微量	微量	微量

机械性能 Mechanical Properties of Products

名称 Name	表面硬度(HRC)	冲击值 ak J/cm ²	金相组织 Microstructure	落球冲击疲劳寿命 Times of Falling Balls	
多元合金铸球 Multi-alloy casting balls	≥47	≥2.0	P+C	φ8类	≥13000
				φ8类	≥13000

奥铁体球磨铸球 Iron body ductile cast balls

化学成分 Chemical Composition (%)

名称 Name	化学成分 Chemical Composition (%)						
	C	Si	Mn	Cr	Mg	S	P
ZQ-ADI	3.2-3.8	2.2-3.0	2.0-2.8	0.2-0.5	0.03-0.06	≤0.03	≤0.06

机械性能 Mechanical Properties of Products

牌号 Designation	表面硬度(HRC)	冲击值 ak J/cm ²	落球冲击疲劳寿命 Times of Falling Balls	
	淬火+等温回火		≤φ90类	≥30000
ZQ-ADI	52-56	8-25	≤φ100类	≥20000

注:以上产品如需调整化学成分或增加其他合金元素,另外以合同方式约定价格。化学成分偏差按GB222-84规定执行。
Note: Any need to adjust chemical composition or add alloyed elements, the price would be agreed according to the contract. Chemical composition departure according to GB222-84.



其他产品 Other products

奥铁体墨铸铁衬板除具有重量轻、性价比高、能源消耗少、强度高、韧性好、疲劳性能高、减震性好等优良的综合性能外，优异的耐磨性是它的又一特点。等温淬火球铁基体组织中，在外力作用下会诱发高碳奥氏体向马氏体转变，而这种马氏体含碳量高，比钢的马氏体硬度更高，这显著增加了奥铁体墨铸铁衬板表面硬度，提高耐磨性。等温淬火球铁具有加工和形变硬化效应，是等温淬火球铁作为多种用途的耐磨材料的原因之一。

In addition to the excellent comprehensive properties of the austenitic ductile iron liner, such as light weight, high cost performance, low energy consumption, high strength, good toughness, high fatigue performance, and good shock absorption, excellent wear resistance is another important feature. In the matrix structure of austempering ductile iron, the transformation of high-carbon austenite to martensite will be induced under the action of external force, and this martensite has high carbon content and higher hardness than steel martensite, which significantly increases the surface hardness of the austenitic ductile iron liner improves wear resistance. Austempered ductile iron has effects of processing and deformation hardening, which is one of the reasons why austempered ductile iron is a wear-resistant material for many purposes.

奥铁体锤头和衬板 Ironbody hammerhead and liner

化学成分 Chemical Composition (%)

化学成分 Chemical Composition(%)										
C	Si	Mn	Cr	Cu	Mo	Mg	Re	B	S	P
3.2-3.8	2.2-3.0	0.5-1.5	0.2-0.5	0.4-0.06	0.3-0.5	0.03-0.06	0.03-0.005	0.002-0.05	≤0.03	≤0.06

机械性能 Mechanical Properties of Products

牌号 Designation	表面硬度 (HRC)		冲击值 ak J/cm2
	使用前	使用后	
ZQ-ADI	45-55	55-60	15-25

注:以上产品如需调整化学成分或增加其他合金元素, 另外以合同方式约定价格。化学成分偏差按GB222 - 84规定执行。
Note: Any need to adjust chemical composition or add alloyed elements, the price would be agreed according to the contract. Chemical composition departure according to GB222- 84.

合金衬板铸钢件 Qualitysd sleeve /alloy cast

序号 NO.	种类 Kinds	牌号 Designation	化学成分 Chemical Composition(%)										机械性能 Mechanical Properties of Products		金相组织 Micro- structure	
			C	Si	Mn	Cr	Mo	Ni	Cu	S	P	AK (J/cm ²)	HRC	σ _b (Mpa)		
1	中碳中铬I Medium carbon chromium I	ZG30Cr5MoRE	0.25-0.35	0.3-1.0	0.3-1.0	4.5-5.5	0.2-1.0				≤0.045	≤0.045	≥25	≥45	M+B+C	
2	中碳中铬II Medium carbon chromium II	ZG40Cr5MoRE	0.35-0.45	0.3-1.0	0.3-1.0	4.5-5.5	0.2-1.0				≤0.045	≤0.045	≥20	≥48	M+B+C	
3	中碳低合金 Medium carbon low alloy	ZG40CrMoNiRE	0.3-0.5	0.7-1.5	0.3-1.0	1.2-1.8	0.2-0.6	0.1-0.4			≤0.04	≤0.04	≥30	≥40	M+F	
4	低碳高合金 Low carbon high alloy	ZG20Cr9NiMo	0.15-3.5	≤1.0	0.3-1.0	8-10	0.4-0.8	1.4-1.8	≤0.1		≤0.045	≤0.045	≥40	≥40	M+C	
5	铬钼镍合金钢 Chromium-molybdenum- nickel alloy steel	ZG45Cr3NiMoMnRE	0.4-0.5	0.3-0.8	0.6-1.2	2.0-3.2	0.3-0.5	0.5-1.0			≤0.04	≤0.04	≥20	≥50	M+C	
6	90铬合金钢 90 chrome alloy steel	ZG90Cr6MoMn	0.85-0.95	0.4-0.8	0.4-0.8	5-8	0.2-0.4				≤0.045	≤0.045	≥7	≥50	M+C	
7	普通高锰钢 Ordinary high manganese steel	ZGMn13	1.1-1.4	0.3-1.0	11-14						≤0.06	≤0.10	≥147	≥229	637	A+C
8	改性高锰钢 Modified high manganese steel	ZGMn13Cr2	1.1-1.4	0.3-1.0	11-14	0.5-2.5					≤0.06	≤0.10	≥80	≥240		A+C
9	超高锰钢 Ultra-high manganese steel	ZGMn17Cr2	1.1-1.4	0.3-1.0	16-19	1.0-2.0		Ti0.2-0.4			≤0.06	≤0.10	≥50	≥260		A+C
10	耐热钢 Heat-resistant steel	ZG20Cr26Ni5	≤0.20	≤0.20	≤0.20	24-28	≤0.5	4-6			≤0.04	≤0.04			590	A+F
11	HH	ZG20Cr26Ni12	0.2-0.5	≤0.20	≤0.20	24-28	≤0.5	11-14			≤0.045	≤0.045			490	A+F
12	HK	ZG40Cr25Ni20	0.35-0.45	≤0.20	≤0.20	23-27	≤0.5	19-22			≤0.045	≤0.045			440	A+F
13	高铬铸铁 High chromium cast iron	KmTBCr15Mo2	2-2.8	≤1.2	0.5-1.0	13-18	0.2-2.5	0-1.0	0-1.2	≤0.06	≤0.10		≥53		M+A+C	
14	高铬铸铁 High chromium cast iron	KmTBCr20Mo2	2-3.0	≤1.2	0.5-1.0	18-22	1.5-2.5	0-1.5	0.8-1.2	≤0.06	≤0.10	≥3	≥58		M+A+C	
15	高铬铸铁 High chromium cast iron	KmTBCr26	2-3.0	≤1.2	0.5-1.0	23-28	0-1.0	0-1.5	0-2.0	≤0.06	≤0.10		≥55		M+A+C	
16	高铬铸钢 High chromium cast steel	ZGCr12SiMn-GT	1.0-2.0	≤1.2	0.5-2.0	12-14	0-1.0	0-1.0	0-1.0	≤0.06	≤0.10	≥3.2	≥55		M+A+C	
17	高铬铸钢 High chromium cast steel	ZGCr15SiMn-GT	1.0-2.0	≤1.2	0.5-2.0	15-17	0-1.0	0-1.0	0-1.0	≤0.06	≤0.10	≥3.5	≥55		M+A+C	

注:以上产品如需调整化学成分或增加其他合金元素, 另外以合同方式约定价格。化学成分偏差按GB222 - 84规定执行。
Note: Any need to adjust chemical composition or add alloyed elements, the price would be agreed according to the contract. Chemical composition departure according to GB222- 84.

M-马氏体 Martensite B-贝氏体 Bainitic A-奥氏体 Austemetic C-碳化物 Carbide F-铁素体 Ferritic

生产工艺、检测 Production process, testing

一、原材料控制

原材料刨花铁及铁合金类采用招标方式，按照《原材料及加工标准》进行验收，加工处理成符合工艺要求的规格并分类堆放，挂上标牌，以区分合格、不合格产品。

二、熔炼控制

我们采用中频感应电炉熔炼，每一炉加入的材料都要精确地计量，合格的配比；确保每炉钢水的成份符合产品的要求。同时采用远红外线光学测温仪对每炉钢水进行温度控制，采用光谱元素分析仪对每炉钢水进行炉前和炉后的成份分析和监控，确保各种规格的产品符合生产要求。

三、化学成份控制

研究研磨介质的化学成份主要使它服务于韧性和硬度相结合，达到一种最佳状态。“永兴”牌产品在生产过程中形成一种优化而科学的控制曲线，形成了我公司独具特色的化学成份配方。

四、成型工艺控制

第一特点：我们的铸造成型工艺独特，采用金属模生产铸球，这期间我们解决了金属模设计、加工、模比、材质等诸多技术难题。

第二特点：以金属模铸造工艺为载体而产生的局部硬化工艺。

五、热处理工艺及温度控制

热处理工艺，是保证和提高产品质量的最后一道工序，也是非常重要的一道工序。经过热处理工艺，产品可以达到我们所需要的基体组织和金相标准。充分运用淬火、回火等工艺，极大地消除由铸造产生的应力，以保证产品在使用期间达到所要求的质量标准。

1.Raw material control

Raw materials iron shavings and ferroalloys are accepted by bidding method, in accordance with the "Raw Materials and Processing Standards", processed into specifications that meet the process requirements, classified and stacked, and hung up signs to distinguish qualified and unqualified products.

2.melting control

We use medium frequency induction electric furnace for melting, and the materials added to each furnace must be accurately measured and qualified proportion; Ensure that the composition of each furnace of molten steel meets the requirements of the product. At the same time, far-infrared optical thermometer is used to control the temperature of each furnace of molten steel, and the spectral element analyzer is used to analyze and monitor the composition of each furnace to ensure that various specifications of products meet the production requirements.

3.Chemical composition control

Studying the chemical composition of the grinding medium mainly makes it serve the combination of toughness and hardness to achieve an optimal state. "Yiyu" brand products in the production process form not only an optimized and scientific control curve, but also our company's unique chemical composition formula.

4.the forming process control

The first feature: our casting molding process is unique, using metal mold to produce casting balls, during which we have solved many technical problems such as metal mold design, processing, mold ratio, material and so on.

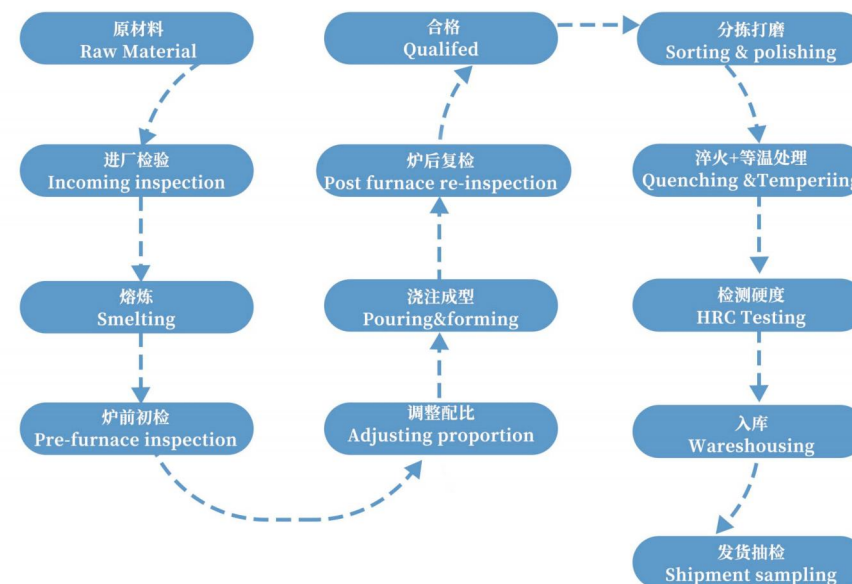
The second feature: the local hardening process produced by the metal mold casting process as the carrier.

5.Heat treatment process and temperature control

The second feature: the local hardening process produced by the metal mold casting process as the carrier.

The heat treatment process is the last process to ensure and improve product quality, and it is also a very important process. The good performance of "Yongxing" brand grinding medium must be fully reflected by the best heat treatment process. Make full use of quenching, tempering and other processes to minimize the stress generated by casting, so as to ensure that the product meets the required quality standards during use.

合金铸球工艺流程图 Alloy casting ball process flow chart



自动化生产设备 Automated production equipment



840铁模覆砂生产线
840 iron mold sand coating production line



840铁模覆砂生产线
840 iron mold sand coating production line



钢球淬火中
Grinding balls are quenched



全自动750射芯铸造线（覆膜砂小球工艺）
Fully automatic 750 core casting line (coated sand pellet process)



砂芯成品
Sand core finished products



冷却中
Cooling



推杆式燃气淬火回火生产线
Pushrod gas quenching and tempering line



耐磨钢球成品
Grinding ball finished product

检测设备 Testing Device



硬度检测仪 Hardness tester



金相组织分析机
Metallographic tissue analysis machine



光谱仪 spectrometer



线切割机 Wire cutting machine

服务行业 Service industry

耐磨钢球是一种用于球磨机中的粉碎介质，用于粉碎磨中的物料，广泛应用于冶金矿山、水泥建材、火力发电、烟气脱硫、磁性材料、化工、水煤浆、球团矿、矿渣、超细粉、粉煤灰、碳酸钙、石英砂等行业球磨机。

Grinding ball is a kind of crushing medium used in ball mills, used to crush the materials in the mill, widely used in metallurgy, mining, cement, building materials, thermal power generation, flue gas desulfurization, magnetic materials, chemical industry, coal water sulrry, pellets, slag, superfine powder, fly ash, calcium carbonate, quartz sand, etc.

矿山 Mine



发电厂 Power plant



水泥厂 Cement plant



合作伙伴
Partners



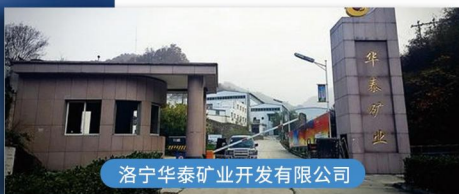
赤峰敖仑花矿业有限责任公司



安徽马钢罗河矿业有限责任公司



通化钢铁集团板石矿业有限责任公司



洛宁华泰矿业开发有限公司



通化钢铁集团桦甸矿业有限责任公司

发展规划 Development Plan

马鞍山市永兴新材料科技有限公司根据社会发展的现状，结合目前耐磨钢球产业的市场需求，制定适应未来发展需求的企业总目标，大力发展国内外业务，并对企业存在的问题进行改善，完善企业制度。提高企业员工的工作积极性，提升企业内部职员的工作效率。

Ma'anshan Yongxing New Material Technology Co., Ltd according to the current situation of social development, combined with the current market demand of the wear-resistant steel ball industry, formulates the overall goal of the enterprise to meet the needs of future development, vigorously develop domestic and foreign business. We are devoted to improving the existing problems and system of the enterprise as well as increasing the work enthusiasm and efficiency of enterprise employees all the time.

拓展目标 Stretch goals

力争三年时间实现企业集团化，到2026年，企业年产值在长江三角地区首屈一指；2028后从而向上市企业迈进。

Strive to realize enterprise conglomeration in three years, and by 2026, the annual output value of the enterprise will be second to none in the Yangtze River Delta region; after 2028, it will move forward to a listed company.

利润目标 Profit target

到2026年主线业务实现的净利润占到公司净利润的70%左右；辅线实现的净利润占公司净利润的30%左右。

By 2026, the net profit realized by the main line business will account for about 70% of the company's net profit; the net profit realized by the auxiliary line will account for about 30% of the company's net profit.

销售目标 Sales target

公司五年内将抓住市场机遇，通过稳妥经营，实现销售快速增长。

The company will seize market opportunities within five years and achieve rapid sales growth through prudent operations.

