

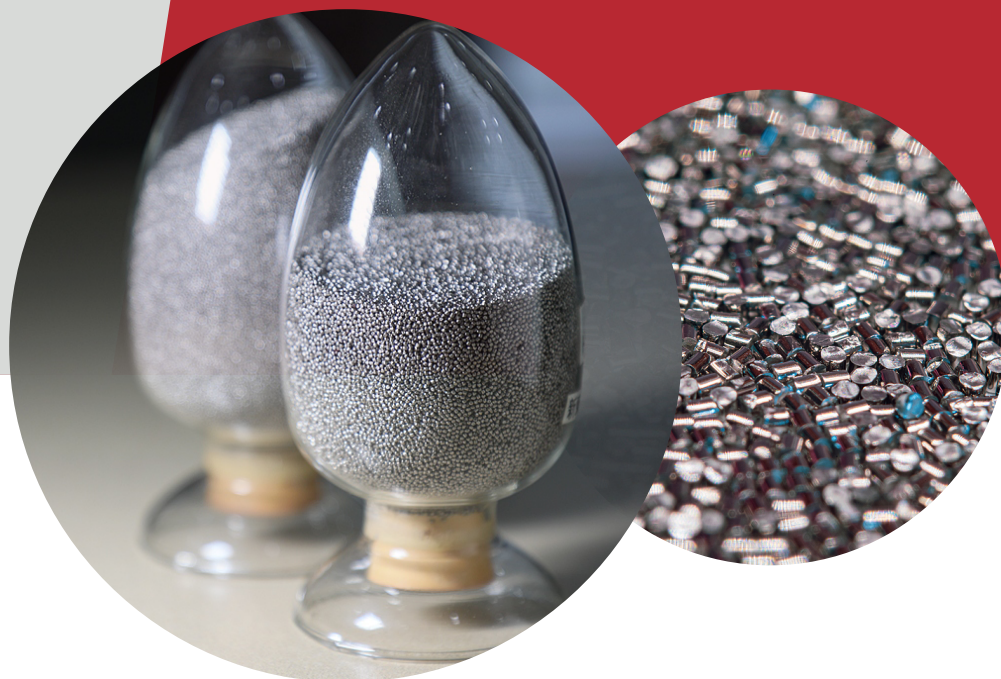
汇腾金属磨料

Huiteng metal abrasive

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金属磨料 产品手册

Metal Abrasive Product Manual



邹平汇腾金属磨料有限公司
Zouping Huiteng Metal Abrasives Co., Ltd

3 大核心优势

THREE CORE STRENGTHS

让您放心选择祺顺金属

钢结构除锈配套供应商

01 经验丰富

多年除锈防腐耗材生产销售

主要从事钢丸、钢丝切丸、钢砂等除锈防腐耗材的生产和销售

The company primarily engages in the production and sale of rust removal and corrosion protection consumables, such as steel shot, wire-cut steel shot, and steel grit.



02 研发团队

提供加工个性化方案

一直以客户的需求为主，提供加工个性化方案，提供各式各样的产品参考，公司产品均通过 ISO9001 质量认证。

We always prioritize our customers' needs, offering customized processing solutions and a wide range of product options; All of our products are ISO 9001 certified.

03 贴心服务

高速响应 后顾之忧

生产加工进度的跟进：全程跟进客户产品加工进度。24 小时内回复客户关于产品问题的反馈，及时为客户解决问题。

Follow-up on production and processing progress: Monitor the progress of customer product processing throughout the entire process. Respond to customer feedback regarding product issues within 24 hours and promptly resolve any problems for the customer.



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COMPANY PROFILE

企业简介



邹平汇腾金属磨料有限公司，坐落于亚洲最大的金属磨料生产基地山东邹平，主要生产铸钢丸、铸钢砂、钢丝切丸、不锈钢丸、研磨丸等金属磨料共 5 大系列 60 多个规格型号，年产量达 10 万吨。公司技术力量雄厚，生产设备先进，利用最先进的中频感应电炉，离心雾化造粒，经二次淬火、回火、选圆、筛分、包装。制成优质高强度。长寿命强化钢丸、钢砂。本公司拥有完善的质量检测手段，引进美国欧文公司的抗疲劳寿命试验机，对金属磨料进行寿命测试，引进德国 SPECTOR 公司直读光谱仪，对金属磨料进行成分测定，产品质量均达到 SAE 美国汽车工程师协会相关标准。产品具有附着力强、耗砂低、清理工件亮度高、技术效果好、力度均匀、硬度适中、内部组织严密、强性好、抗疲劳、耐磨等特点。广泛适用于集装箱制造、造船、汽车、铸造、锻造、热处理、机车、钢结构、钢管、机械、矿山、航空、压力容器、石材等抛丸、喷砂清理及喷丸强化。

本公司已通过了 ISO9001-2000 国际质量管理体系认证，产品出口二十个国家和地区，深受国内外铸造、锻造、热处理、钢结构、集装箱、机械、造船、汽车、矿山、石材等行业用户好评。

Zouping Huiteng Metal Abrasives Co., Ltd, located in Zouping, Shandong—Asia's largest metal abrasive production base—primarily manufactures metal abrasives including cast steel shot, cast steel grit, wire-cut shot, stainless steel shot, and grinding shot. The company offers five major product series comprising over 60 specifications and models, with an annual production capacity of 100,000 tons.

The company possesses strong technical capabilities and state-of-the-art production equipment. Utilizing the most advanced medium-frequency induction furnaces and centrifugal atomization granulation processes, the products undergo secondary quenching, tempering, rounding, screening, and packaging to produce high-quality, high-strength long-life, high-strength steel shot and steel grit. The company maintains comprehensive quality control measures, including a fatigue life tester from U.S.-based Irving Industries for conducting durability tests on metal abrasives, and a direct-reading spectrometer from Germany's SPECTOR for analyzing their chemical composition. All products meet the relevant standards of the Society of Automotive Engineers (SAE). Our products feature strong adhesion, low consumption, high surface brightness of cleaned workpieces, excellent technical performance, uniform impact force, moderate hardness, dense internal structure, high strength, fatigue resistance, and wear resistance. They are widely used for shot blasting, sandblasting cleaning, and shot peening in container manufacturing, shipbuilding, automotive, foundry, forging, heat treatment, locomotive, steel structure, steel pipe, machinery, mining, aviation, pressure vessel, and stone industries.

Our company has obtained ISO 9001:2000 international quality management system certification. Our products are exported to twenty countries and regions and have received high praise from customers in the foundry, forging, heat treatment, steel structure, container, machinery, shipbuilding, automotive, mining, and stone industries both domestically and internationally.

CORPORATE CULTURE

企业文化

发展方针：立足品牌，以人才促发展

服务理念：以专业、超值的服务让客户感动

企业精神：发展是解决一切问题的根本

企业愿景：身边触手可及的抛喷丸处理专家

核心价值观：责任，团队，创新，发展

企业宗旨：真务实，追求卓越

企业使命：合抛丸资源，促进行业发展

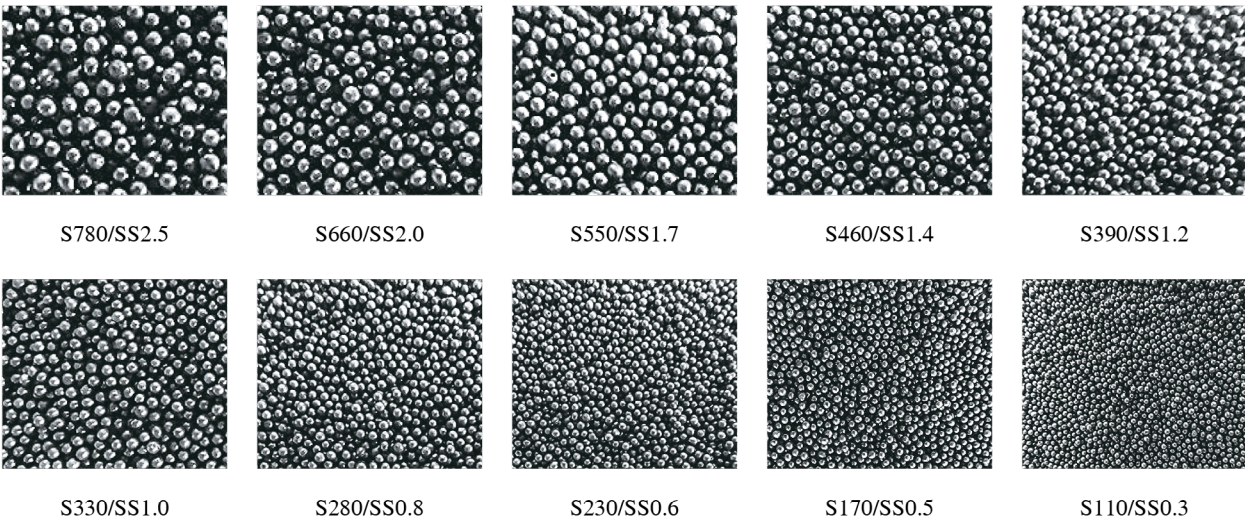
脚踏实地
砥砺前行



PRODUCT CENTER

产品中心
铸钢丸

STEEL SHOT



铸钢丸是以钢碎料为原料制成的球状金属磨料，主要成分为碳、硅、锰、铬等元素，采用离心雾化法或水射流冲击法成形，经二次加热净化匀质后，进行淬火回火处理达到规定硬度，最终通过机械筛分形成符合 SAE 标准的 11 个等级。其生产工艺包含熔炼、成形造粒、均质净化处理、热处理和筛分等标准化流程，执行《涂覆涂料前钢材表面处理喷射清理用金属磨料的技术要求》标准。

该产品具有硬度适中、抗冲击性强等特点，广泛应用于金属工件表面清理、铸件清砂及喷丸强化工艺。在汽车齿轮喷丸强化等领域需使用高硬度铸钢丸，弹丸尺寸需小于齿根半径一半以确保强化效果。行业应用覆盖航空、造船、压力容器等多个工业领域，全球市场规模预计从 2024 年持续增长至 2031 年。生产企业采用自动化淬火装置提升生产效率，关键技术涉及铬合金成分控制及快冷离心雾化工艺。

Cast steel pellets are spherical metal abrasives made from steel shavings as raw materials, mainly composed of carbon, silicon, manganese, chromium and other elements. They are formed by centrifugal atomization or water jet impact method, purified and homogenized by secondary heating, quenched and tempered to achieve the specified hardness, and finally formed into 11 grades that meet SAE standards through mechanical screening. Its production process includes standardized processes such as melting, forming granulation, homogenization purification treatment, heat treatment, and screening, and follows the standard of "Technical Requirements for Metal Abrasives for Spray Cleaning of Steel Surface Treatment before Coating".

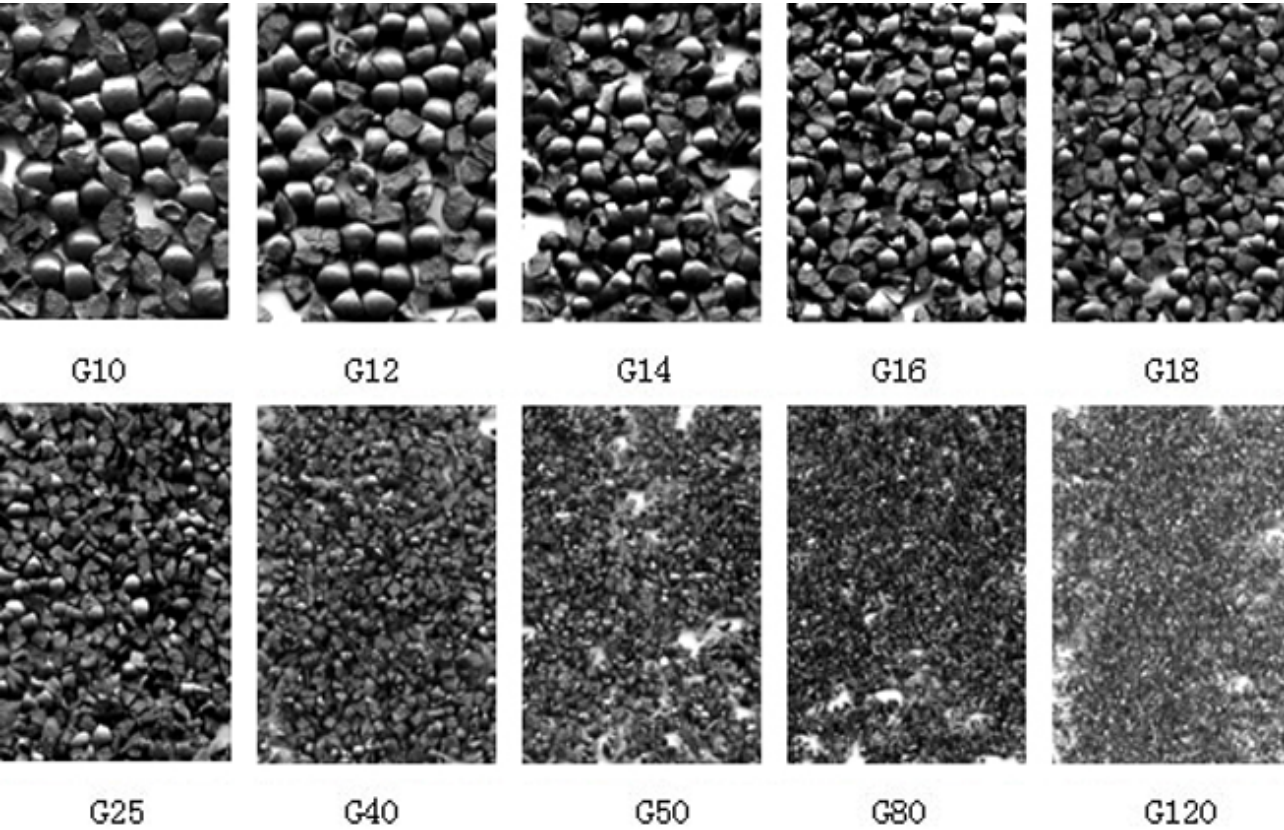
This product has the characteristics of moderate hardness and strong impact resistance, and is widely used in surface cleaning of metal workpieces, sand removal of castings, and shot peening strengthening processes. In the field of automotive gear shot peening, high hardness cast steel shot is required, and the shot size should be less than half of the tooth root radius to ensure the strengthening effect. The industry applications cover multiple industrial fields such as aviation, shipbuilding, and pressure vessels, and the global market size is expected to continue to grow from 2024 to 2031. Production enterprises adopt automated quenching equipment to improve production efficiency, with key technologies involving chromium alloy composition control and fast cooling centrifugal atomization process.

目录 Mesh	mm	铸钢丸规格 mm Specification of cast steel shot										
		SS-2.5	SS-2.0	SS-1.7	SS-1.4	SS-1.2	SS-1.0	SS-0.8	SS-0.6	SS-0.5	SS-0.3	SS-0.2
7	2.8	all pass										
8	2.36		all pass									
10	2	≥ 85%		all pass	all pass							
12	1.7	≥ 97%	≥ 85%		≤ 5%	all pass						
14	1.4		≥ 97%	≥ 85%		≤ 5%	all pass					
16	1.18			≥ 97%	≥ 85%		≤ 5%	all pass				
18	1				≥ 97%	≥ 85%		≤ 5%	all pass			
20	0.85					≥ 97%	≥ 85%		≤ 5%	all pass		
25	0.71						≥ 97%	≥ 85%		≤ 10%		
30	0.6							≥ 97%	≥ 85%		all pass	
35	0.5								≥ 97%	≥ 85%	≤ 10%	
40	0.425									≥ 97%		all pass
45	0.355										≥ 80%	≤ 10%
50	0.3										≥ 90%	
80	0.18											≥ 80%
120	0.125											≥ 90%
200	0.075											
325	0.045											
SAE		S~780	S~660	S~550	S~460	S~390	S~330	S~280	S~230	S~170	S~110	S~70

项目 Item		铸钢丸 Cast steel shot
化学成分 Chemical Composition	碳 C %	0.80~1.20
	硅 Si %	0.40~1.20
	锰 Mn %	0.35~1.20
	硫 S %	≤ 0.05
	磷 P %	≤ 0.05
硬度（500g 荷载下测定 HV） Hardness (measured HV under 500g load)		常规 routine：40-500HRC（337-509HV）
		特殊 special：52-56HRC（543-620HV）
		特殊 special：56-60HRC（620-713HV）
硬度偏差 Hardness deviation		最大偏差范围为 ± 3.0HRC 或 ± 40HV The maximum deviation range is ± 3.0HRC or ± 40HV
金相组织 metallographic structure		均匀的回火马氏体或回火屈氏体 + 弥散分布碳化物 Uniform tempered martensite or tempered martensite+dispersed carbides
密度（酒精置换法测定） Density (measured by alcohol displacement method)		7.2g/cm3
符合 GB/T 18838.3-2008《高碳铸钢丸、铸钢砂》、GB/T 18838.4-2008《低碳铸钢丸》、SAE J1993 高碳铸钢砂、ISO11124-3 高碳铸钢丸和砂标准、JIS G5903 高碳铸钢丸铸钢砂、JB/T 8354.2-2015《高碳铸钢丸》、JB/T 8354.3-2015《高碳铸钢砂》、JB/T 8354.4-2015《低碳铸钢丸》、SFSA20-66 铸钢磨料、SAE J827 铸钢丸。 Compliant with GB/T 18838.3-2008 "High Carbon Cast Steel Balls, Cast Steel Sands", GB/T 18838.4-2008 "Low Carbon Cast Steel Balls", SAE J1993 High Carbon Cast Steel Sands, ISO11124-3 High Carbon Cast Steel Balls and Sands standards, JIS G5903 High Carbon Cast Steel Balls Cast Steel Sands, JB/T 8354.2-2015 "High Carbon Cast Steel Balls", JB/T 8354.3-2015 "High Carbon Cast Steel Sands", JB/T 8354.4-2015 "Low Carbon Cast Steel Balls", SFSA20-66 Cast Steel Abrasives, SAE J827 Cast Steel Balls.		

铸钢砂

CAST STEEL GRIT



铸钢砂，又称钢砂磨料、抛丸磨料，是铸铁砂和铁砂的升级替代产品，是一种由高碳钢或合金钢废料制成的金属研磨材料。其碳含量为 0.70%-1.20%，硬度覆盖 42-66HRC，分为 GP、GL、GH 三个等级，粒径范围 0.2mm-2.5mm（对应 G10-G120 规格）。铸钢砂采用废钢淬火破碎法或铸造成型工艺生产，显微结构为回火马氏体或索氏体，密度达 7.4g/cm³，具有棱角多面体形态及高抗冲击性。主要应用于金属工件抛丸清理、表面除锈及喷丸强化，涵盖钢板涂装前处理（GH 级）、铸件清砂（GL 级）、钢材除磷（GP 级）等场景。适用设备包括抛丸机、喷砂房，包装规格为 25kg/ 袋，应用于汽车制造、船舶维修、铸造业及钢结构处理等领域。

Cast steel sand, also known as steel sand abrasive or shot blasting abrasive, is an upgraded substitute product for cast iron sand and iron sand. It is a metal grinding material made from high carbon steel or alloy steel waste. Its carbon content is 0.70% -1.20%, and its hardness covers 42-66HRC. It is divided into three grades: GP, GL, and GH, with a particle size range of 0.2mm-2.5mm (corresponding to G10-G120 specifications). Cast steel sand is produced using scrap steel quenching and crushing method or casting forming process, with a microstructure of tempered martensite or martensite, a density of 7.4g/cm3, angular polyhedral morphology, and high impact resistance. Mainly used for shot blasting cleaning, surface rust removal, and shot blasting strengthening of metal workpieces, covering scenarios such as steel plate coating pre-treatment (GH level), casting sand removal (GL level), and steel phosphorus removal (GP level). Applicable equipment includes shot blasting machines and sandblasting rooms, with a packaging specification of 25kg/bag, used in fields such as automobile manufacturing, ship maintenance, casting industry, and steel structure treatment.

筛网号 Screen No	英寸 In	筛网孔径 Screen Size	SAE J444 钢砂 Steel Grit									
			G10	G12	G14	G16	G18	G25	G40	G50	G80	G120
6	0.132	3.35										
7	0.111	280	all pass									
8	0.0937	2.36		all pass								
10	0.0787	2.00	≥ 80%		all pass							
12	0.0661	170	≥ 90%	≥ 80%		all pass						
14	0.0555	1.40		≥ 90%	≥ 80%		all pass					
16	0.0469	1.18			≥ 90%	≥ 75%		all pass				
18	0.0394	1.00				≥ 85%	≥ 75%					
20	0.0331	0.850										
25	0.0280	0.710					≥ 85%	≥ 70%		all pass		
30	0.0232	0.600										
35	0.0197	0.500										
40	0.0165	0.425						≥ 80%	≥ 70%		all pass	
45	0.0138	0.355										
50	0.0117	0.300							≥ 80%	≥ 65%		all pass
80	0.007	0.180								≥ 75%	≥ 65%	
120	0.0049	0.125									≥ 75%	≥ 60%
200	0.0029	0.075										≥ 70%

项目 Item		GP 钢砂	GL 钢砂	GH 钢砂
化学成分 Chemical Composition	碳 C	0. 85-1.20		
	硅 Si	0.40-1.20		
	锰 Mn	0.60-1.20		
	硫 S	≤ 0.05		
	磷 P	≤ 0.05		
硬度 hardness		HRC46-50	HRC56-60	HRC63-65
金相组织 metallographic structure		均一的回火马氏体或屈氏体		
密度 density		≥ 7.40g/cm3		
外观 appearance		多角形（球状、半球状、扁平状颗粒 <10%） Polyhedral (spherical, hemispherical, flat particles<10%)		

钢丝切丸

STEEL WIRE CUTTING PELLETSpellets



钢丝切丸是一种采用冷拉钢丝经精确切割制成的圆柱形金属磨料。按钢丝材质分为不锈钢、高碳钢和低碳钢三类，形态包括未钝化处理的圆柱形与钝化处理的圆形两种。其生产过程涉及电炉熔炼、热处理及自动筛选等工艺，具有组织致密、粒度均匀、耐冲击性强等特点，使用寿命约为铸铁丸的 5 倍，可循环使用 3000-3500 次后逐渐转化为粉尘。该产品广泛应用于铸件、钢材的抛丸清理、除锈及航空零件强化处理，适配抛丸机、喷砂机设备，满足不同行业的表面处理需求。

随着工艺发展，钢丝切丸逐步引入钝化处理和标准化生产体系，如德国 VDFI8001、美国 MIL-S-13165 等标准，并通过磨圆机预钝化技术提升圆度与覆盖率。其应用领域从传统机械制造扩展至船舶、军工等行业，形成按硬度等级（HV370-730）和外形规格（0.2-3.5mm）的细分产品体系。生产工艺持续优化，采用废钢丝与轮胎丝原料，结合电热处理控制硬度（41-53HRC）及抗拉强度（1750-2150MPa），提升经济性与环保性。

Steel wire cutting ball is a cylindrical metal abrasive made by precise cutting of cold drawn steel wire. According to the material of the steel wire, it is divided into three categories: stainless steel, high carbon steel, and low carbon steel, with two forms: cylindrical without passivation treatment and circular with passivation treatment. Its production process involves processes such as electric furnace melting, heat treatment, and automatic screening. It has the characteristics of dense structure, uniform particle size, and strong impact resistance. Its service life is about 5 times that of cast iron pellets, and it can be recycled 3000-3500 times before gradually converting into dust. This product is widely used for shot blasting cleaning, rust removal, and strengthening treatment of castings, steel, and aviation parts. It is compatible with shot blasting machines, sandblasting machines, and other equipment to meet the surface treatment needs of different industries. With the development of technology, steel wire cutting balls are gradually introduced into passivation treatment and standardized production systems, such as German VDFI8001, American MIL-S-13165 standards, etc., and roundness and coverage are improved through pre passivation technology of grinding machines. Its application areas have expanded from traditional mechanical manufacturing to industries such as shipbuilding and military, forming a segmented product system based on hardness levels (HV370-730) and external specifications (0.2-3.5mm). The production process is continuously optimized, using waste steel wire and tire wire raw materials, combined with electric heating treatment to control hardness (41-53HRC) and tensile strength (1750-2150MPa), improving economy and environmental friendliness.

研磨丸

GRINDING PILLS CUTTING PELLETS



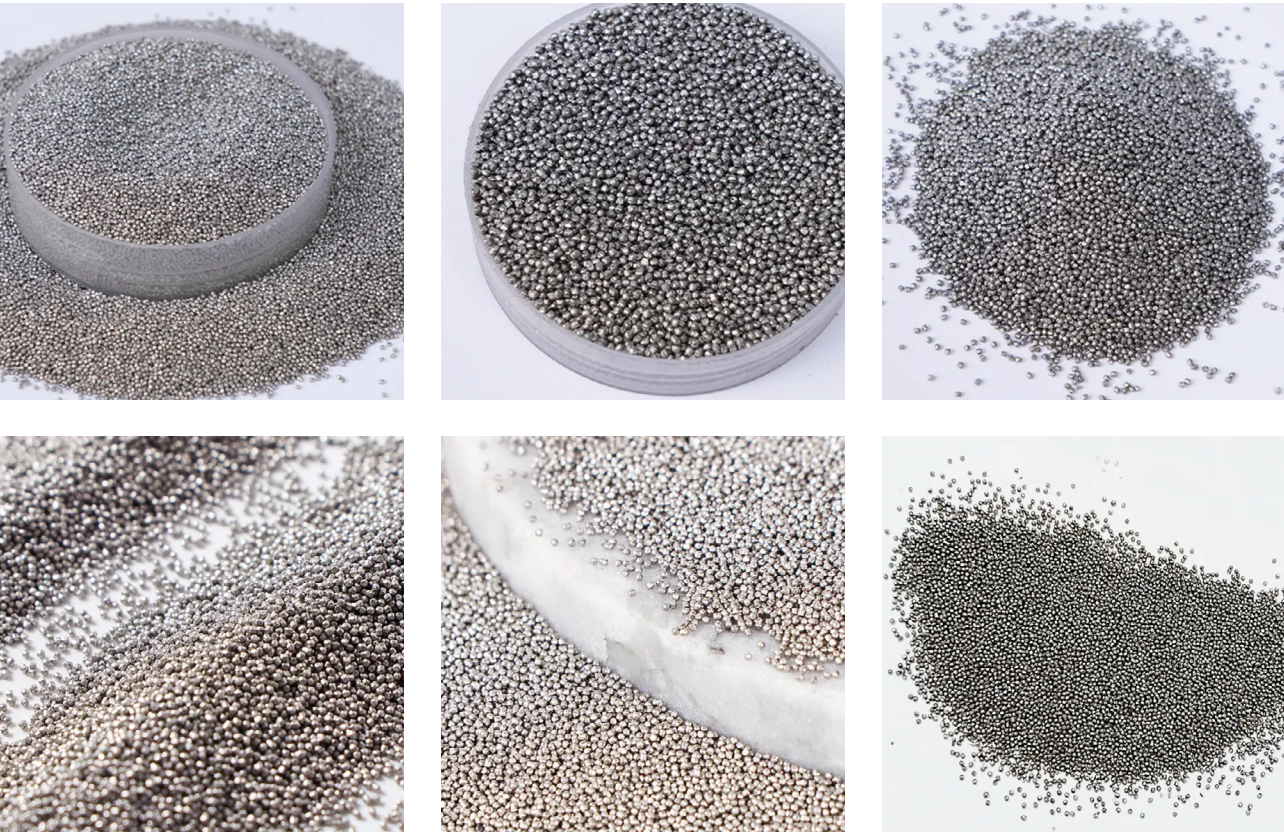
研磨丸是一种锻造产品，亦称高锰钢丸，由高锰钢丝经高速切割成圆柱体后导角磨圆制成，具有无气孔、不破碎的特点，在使用周期内可逐渐消耗至原尺寸的 3/10。其生产工艺包括拉丝、裁切、磨圆等流程，成品颗粒均匀且硬度均衡，外观呈亮泽圆柱状，适用于淬火齿轮、弹簧、螺丝及不锈钢工件的表面处理，可去除氧化皮并呈现金属亚光效果。

该产品执行 JB/T8354-1996 标准，规格包括 0.6#、0.8#、1.0#、1.2#、1.4#、1.7#、1.8#、2.0#、2.4#，硬度范围为 HRC40-50（回火）及 HRC50-65（不回火），金相组织为回火马氏体及屈氏体。相较于传统铸钢丸和钢丝切丸，其循环寿命可达 3 倍以上，具有韧性高、耐磨性强、清理效率高特点，能降低设备损耗与生产成本，广泛应用于汽摩配件、压铸件、工程机械等领域的精加工处理。

Grinding ball is a forged product, also known as high manganese steel ball. It is made by cutting high manganese steel wire into a cylindrical shape at high speed and then rounding it with a guide angle. It has the characteristics of no pores and no breakage, and can gradually consume up to 3/10 of its original size during its service life. Its production process includes processes such as wire drawing, cutting, and rounding. The finished particles are uniform and have a balanced hardness, with a shiny cylindrical appearance. It is suitable for surface treatment of quenched gears, springs, screws, and stainless steel workpieces, and can remove oxide scales and present a metallic matte effect. This product complies with the JB/T8354-1996 standard, with specifications including 0.6 #, 0.8 #, 1.0 #, 1.2 #, 1.4 #, 1.7 #, 1.8 #, 2.0 #, and 2.4 #. The hardness range is HRC40-50 (tempered) and HRC50-65 (non tempered), and the metallographic structure is tempered martensite and martensite. Compared to traditional cast steel pellets and steel wire cutting pellets, its cycle life can reach more than three times, with high toughness, strong wear resistance, and fast cleaning efficiency. It can reduce equipment wear and production costs and is widely used in precision machining of automotive and motorcycle parts, die-casting parts, engineering machinery, and other fields.

不锈钢丸

STAINLESS STEEL SHOT



不锈钢丸，别称不锈钢丸、不锈抛圆钢丝切丸，按其原料不同可分为不锈钢丸和普通钢丸，是一种由不锈钢丝切割抛圆或熔炼雾化制成的金属磨料，主要成分为铬、镍等合金元素，常见型号包括 304 奥氏体型、430 铁素体型和 410 马氏体型。其外形呈圆珠状，硬度范围 308-509HV，密度 7.8g/cm³，具有无气孔、寿命长、粉尘少的特点，适用于有色金属及不锈钢工件的表面抛丸处理，有效掩盖表面缺陷。

该产品通过钝化法和雾化法生产，其中雾化法钢丸成圆度高但易碎，钝化法采用拉丝切割抛圆工艺制成光亮圆珠。应用领域涵盖汽车零部件、医疗器械等行业的表面去氧化皮、除锈、强化处理，处理后工件可保持亚光金属本色且无需酸洗。德国技术引进推动国产雾化不锈钢丸实现低灰尘、长寿命的环保特性，规格覆盖 0.1-3.0mm 范围以适应不同加工需求。

Stainless steel shot, also known as stainless steel shot or stainless polished round steel wire cutting shot, can be divided into stainless steel shot and ordinary steel shot according to their raw materials. It is a metal abrasive made by cutting, polishing, or melting stainless steel wire, mainly composed of alloy elements such as chromium and nickel. Common models include 304 austenitic, 430 ferritic, and 410 martensitic. Its appearance is spherical, with a hardness range of 308-509HV and a density of 7.8g/cm³. It has the characteristics of no pores, long service life, and low dust. It is suitable for surface shot blasting treatment of non-ferrous metals and stainless steel workpieces, effectively covering surface defects. This product is produced through passivation and atomization methods. The atomization method produces steel balls with high roundness but is fragile, while the passivation method uses wire drawing, cutting, and polishing technology to produce bright round beads. The application areas cover surface descaling, rust removal, and strengthening treatment in industries such as automotive parts and medical devices. After treatment, the workpiece can maintain its matte metallic color without the need for acid washing. The introduction of German technology promotes the environmentally friendly characteristics of low dust and long service life of domestically produced atomized stainless steel pellets, with specifications covering the range of 0.1-3.0mm to meet different processing needs.

埋箱砂

BURIED BOX SAND



埋箱砂是消失模铸造工艺中的专用干砂，主要用于填充、包裹泡沫气化模具。作业时将其均匀填充在模具四周，依靠密实的结构对泡沫模形成稳固支撑，可抵御高温金属液浇注产生的冲击与压力，有效避免型腔变形、坍塌，保障铸件成型精度。

该产品透气性优异，能及时排出泡沫模具受热分解产生的大量气体，减少气孔、缺料等铸造缺陷，提升成品合格率。同时它溃散性良好，铸件冷却后开箱清理简单，还可循环复用，经济效益显著。

产品理化性能稳定，耐高温、流动性佳，填充作业轻松且分布均匀，适配各类规格砂箱与规模化生产线，是消失模铸造生产中不可或缺的基础耗材。

Burying sand is a specialized dry sand used in the lost-foam casting process, primarily for filling and encasing foam molds. During operation, it is evenly packed around the mold; its dense structure provides stable support for the foam mold, withstanding the impact and pressure generated by the pouring of high-temperature molten metal. This effectively prevents cavity deformation and collapse, ensuring the dimensional accuracy of the castings.

This product offers excellent permeability, allowing it to promptly vent the large volumes of gas generated by the thermal decomposition of the foam mold. This reduces casting defects such as porosity and short shots, thereby improving the yield rate of finished products. Additionally, it exhibits good collapsibility, making it easy to remove and clean the mold after the casting has cooled. It can also be recycled and reused, offering significant economic benefits.

With stable physical and chemical properties, high-temperature resistance, and excellent flowability, the product allows for easy and uniform filling. Compatible with sand boxes of various specifications and large-scale production lines, it is an indispensable basic consumable in lost-foam casting production.

铝丸

ALUMINIUM SHOT

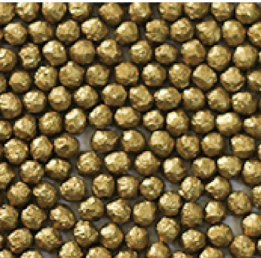


铝丸是以铝合金为主要原料制成的工业磨料，采用旋切钝化等工艺制造，具有颗粒均匀、硬度适中等特性。其直径范围涵盖 0.1 毫米至 15 毫米，在抛丸清理工艺中可实现对铜、铝等金属工件的表面抛光处理而不损伤基材。通过自动化包装装置与定量注入技术，该产品在冶金精炼和金属加工领域展现出高效应用价值。

Aluminum pellets are industrial abrasives mainly made of aluminum alloy, manufactured using processes such as rotary cutting and passivation, and have characteristics such as uniform particle size and moderate hardness. Its diameter range covers 0.1 millimeters to 15 millimeters, and in shot blasting cleaning process, it can achieve surface polishing treatment of metal workpieces such as copper and aluminum without damaging the substrate.

铜丸

COPPER SHOT



铜丸采用拉丝、裁切、磨圆等工艺精制而成。外观金黄发亮圆珠或圆柱状。多应用于阀门、电器配件、装饰品等工件表面的强化、亚光、增色处理。

It is refined through processes such as drawing, cutting, and rounding. The appearance is golden and shiny with round beads or cylindrical shapes. It is widely used for strengthening, matte, and color enhancement treatment on the surface of workpieces such as valves, electrical

锌丸

ZINC PILL



锌丸采用拉丝、裁切、磨圆等工艺精制而成。主要用于各种铝合金、锌等材质压铸件产品的去除毛刺及清理。体积密度接近钢铁、硬度低，可以保证产品表面质量的同时去除较大的毛刺，够在金属表面形成防腐层，对工件表面具有显著的增白效果。

It is refined through processes such as drawing, cutting, and rounding. Mainly used for deburring and cleaning various aluminum alloy, zinc and other material die-casting products. The bulk density is close to steel and the hardness is low, which can ensure the surface quality of the product while removing larger burrs. It can form a corrosion-resistant layer on the metal surface and has a significant whitening effect on the workpiece surface.

钢丸收集车

STEEL SHOT COLLECTION VEHICLEVEHICLE



钢丸收集车专为喷丸、喷砂车间设计，依靠磁力或真空装置，可自动收集、分离地面钢丸与杂质。设备提升钢丸回收率，降低人工劳动强度，助力车间环境整洁与磨料自动化管理，广泛应用于铸造、钢结构、船舶制造等领域。

The steel shot collection cart is specifically designed for shot blasting and sandblasting workshops. Utilizing magnetic or vacuum systems, it automatically collects and separates steel shot and debris from the floor. The equipment improves steel shot recovery rates, reduces manual labor, and helps maintain a clean workshop environment while enabling automated abrasive management. It is widely used in the foundry, steel structure, and shipbuilding industries.

钢球

COPPER BALL



钢球是现代工业中至关重要的基础研磨介质，其核心功能是通过在球磨机等设备中产生持续的冲击与滚动摩擦，高效地将矿石、水泥、煤炭等块状物料粉碎并磨细至所需粒度。凭借由特殊钢材与热处理工艺赋予的高硬度、耐磨性及抗压强度，钢球能在严苛的研磨环境中保持形态稳定，是矿山、建材、电力及冶金等行业粉磨工艺不可或缺的核心消耗件。

Steel balls are crucial basic grinding media in modern industry, and their core function is to efficiently crush and grind block materials such as ore, cement, and coal to the desired particle size by generating continuous impact and rolling friction in equipment such as ball mills. Thanks to the high hardness, wear resistance, and compressive strength conferred by special steel and heat treatment processes, steel balls can maintain stable shape in harsh grinding environments and are essential core consumables for grinding processes in industries such as mining, building materials, power, and metallurgy.

棕刚玉

BROWN FUSED ALUMINA



棕刚玉是一种以氧化铝为主要成分的人造磨料，因其棕褐色而得名。它硬度高、韧性好且成本低廉，是工业领域最基础和应用最广泛的磨料之一。其主要用途包括制造砂轮、砂带进行金属磨削，作为喷砂材料用于表面清理除锈，以及凭借其耐高温特性充当高级耐火材料的骨料，堪称现代制造业的“牙齿”与“铠甲”。

Brown corundum is an artificial abrasive mainly composed of alumina, named after its brown color. It has high hardness, good toughness, and low cost, making it one of the most basic and widely used abrasives in the industrial field. Its main uses include manufacturing grinding wheels and sand belts for metal grinding

白刚玉

WHITE FUSED ALUMINA



白刚玉是一种以工业氧化铝为原料制成的人造磨料，其氧化铝纯度高达 99% 以上，颜色洁白。相比棕刚玉，它的硬度略高、韧性稍低但更显脆性，因此在磨削时不易粘屑、发热量小。它尤其适用于精磨、刀具和精密零件的磨削，以及对碳钢、合金钢等硬度较高材料的锐利切割，并能用于制造高级耐火材料和绝缘体。

White corundum is an artificial abrasive made from industrial alumina, with a purity of over 99% and a pure white color. It is particularly suitable for precision grinding, grinding of cutting tools and precision parts, as well as sharp cutting of hard materials such as carbon steel and alloy steel, and can be used to manufacture advanced refractory materials and insulators.

玻璃珠

GLASS BEADS



玻璃珠是一种由玻璃制成的微小球形颗粒，它具备光滑的表面、优异的反射性和化学稳定性。其主要用途包括作为喷丸材料用于金属工件的清洁与强化，作为反光材料掺入道路标线漆中极大提升夜间可见度，以及作为填料广泛应用于工业研磨、化工和化妆品领域。

Glass beads are small spherical particles made of glass, which have a smooth surface, excellent reflectivity, and chemical stability. Its main uses include as a shot blasting material for cleaning and strengthening metal workpieces, as a reflective material mixed into road marking paint to greatly improve night visibility, and as a filler widely used in industrial grinding, chemical and cosmetic fields.

碳化硅

SILICON CARIDE



碳化硅俗称“金刚砂”，是一种由石英砂、石油焦等原料在高温下人工合成的化合物。它以其极高的硬度和优异的导热、耐高温性能而著称。这种材料被广泛用作切割、研磨金属及脆性材料的磨料，更是制造高性能耐火材料、半导体器件以及防弹陶瓷的核心基础材料。

Silicon carbide, commonly known as "diamond sand", is an important compound synthesized artificially from raw materials such as quartz sand and petroleum coke at high temperatures. Known for its extremely high hardness, excellent thermal conductivity, and high temperature resistance. Widely used as an abrasive for cutting and grinding metals and brittle materials, it is the fundamental material for manufacturing high-performance refractory materials, semiconductor devices, and bulletproof ceramics.

石英砂

QUARTZ SAND



石英砂是一种由天然石英石破碎打磨而成的坚硬、耐磨的硅质颗粒，其主要成分是二氧化硅。凭借稳定的化学性质、高硬度和优异的耐高温性，它被广泛应用于玻璃制造、铸造砂芯、水利过滤以及作为建筑材料和生产水磨石的骨料，是工业和建筑领域不可或缺的基础原材料。

Quartz sand is a hard and wear-resistant siliceous particle made by crushing and polishing natural quartz stone, mainly composed of silicon dioxide. Due to its stable chemical properties, high hardness, and excellent high temperature resistance, it is widely used in glass manufacturing, casting sand cores, hydraulic filtration, and as a building material and aggregate for producing terrazzo. It is an indispensable basic raw material in the industrial and construction fields.

磁力钢针

MAGNETIC STEEL NEEDLE

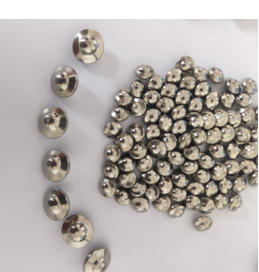


磁力钢针是一种具有磁性的细长钢制探针，它巧妙地将针的探触功能与磁铁的吸附特性合二为一。其主要用途是在复杂或视线不清的机械、电子设备中，精准地拾取、放置和定位微小的铁磁性零件（如螺丝、弹簧、销钉），极大地提高了装配、维修和排查工作的效率与便捷性，是精密维修和手工制造中不可或缺的得力工具。

Magnetic steel needle is a slender steel probe with magnetism, which combines the probing function of the needle with the adsorption characteristics of the magnet. Its main purpose is to accurately pick up, place, and locate tiny ferromagnetic parts (such as screws, springs, and pins) in complex or visually unclear mechanical and electronic devices, greatly improving the efficiency and convenience of assembly, maintenance, and troubleshooting work. It is an indispensable and powerful tool in precision maintenance and manual manufacturing.

蝶形钢珠

BUTTERFLY SHAPED STEEL BALL



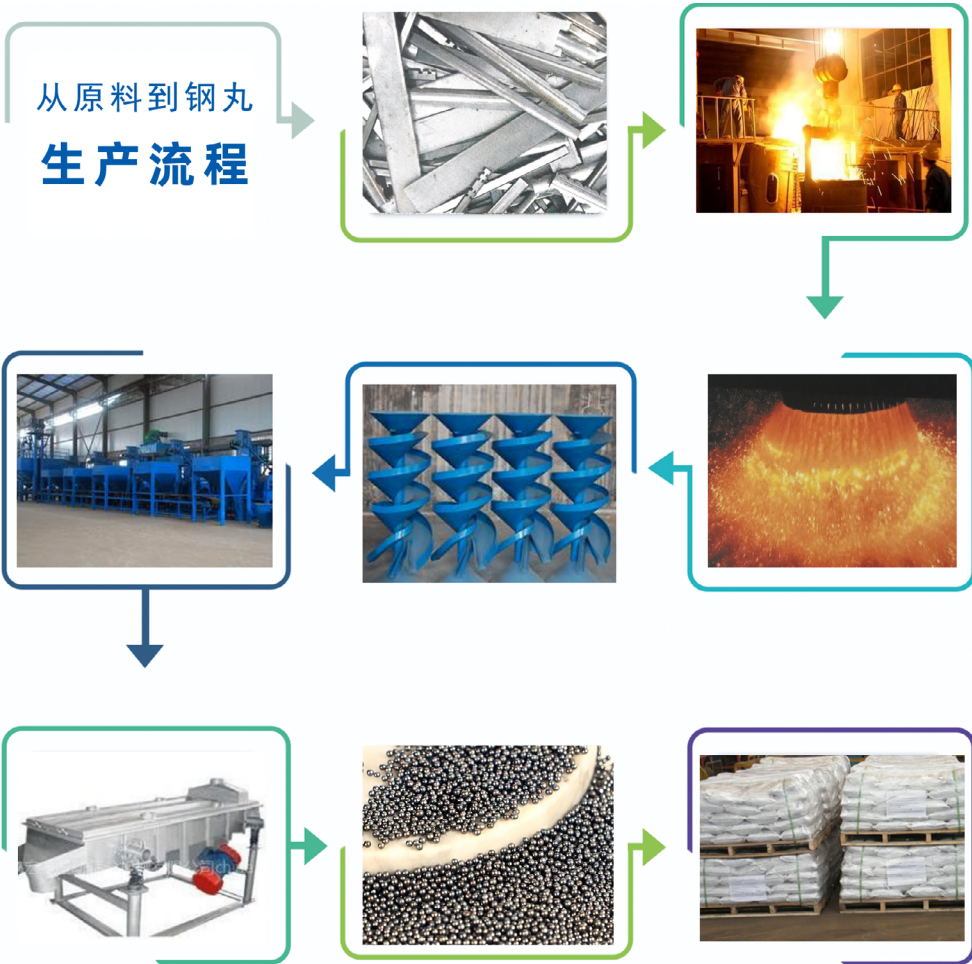
蝶形钢珠是钢珠与蝶形螺母一体化的非标准紧固件，核心为钢珠精密安装于蝶形螺母上，可手动调节螺杆 / 丝杆位置并借助钢珠低摩擦特性固定。它广泛应用于家具、仪器设备等需频繁手动线性调节的场合，操作便捷且适配多种手动调节场景。

Butterfly shaped steel ball is a non-standard fastener that integrates steel ball and butterfly nut. The core is that the steel ball is precisely installed on the butterfly nut, and the screw/lead screw position can be manually adjusted and fixed with the low friction characteristics of the steel ball. It is widely used in furniture, instruments and equipment that require frequent manual linear adjustment, with convenient operation and adaptability to various manual adjustment scenarios.

PRODUCTION PROCESS

生产流程
铸钢丸

STEEL SHOT

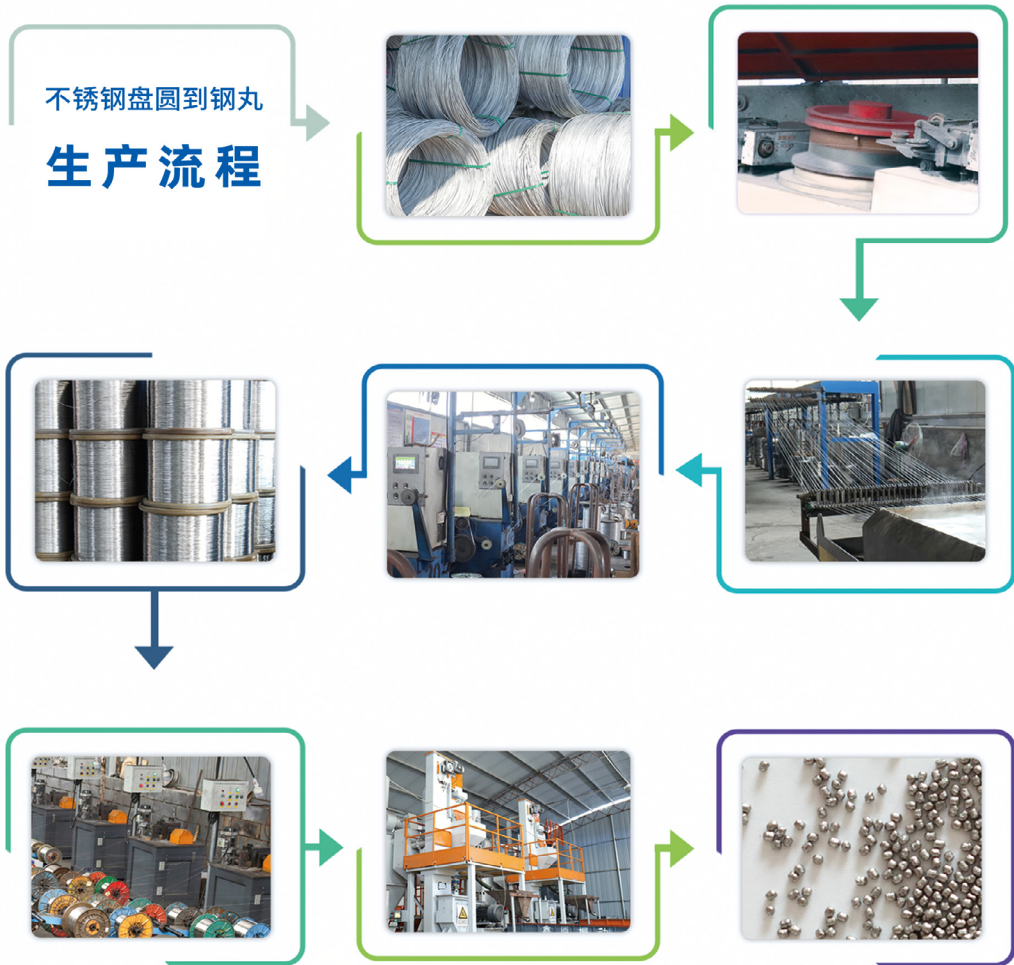


采用精选的原材料废钢，添加稀有金属及最佳配比合金，经电炉熔炼，现代化设备生产转化为钢粒，并经多次电热处理、自动筛选，在液体金属形成钢粒的过程中，其化学成份、粒度都受到严格控制，以确保其机械性能符合各种用途。每一个生产环节中都有最严密的品质管理，生产的钢丸内部组织严密，不易破碎，粒度分布均匀，具有适当的硬度，耐冲击性强，寿命长。

We use carefully selected raw materials such as scrap steel, add rare metals and the best proportioned alloys, and melt them in an electric furnace. Modern equipment produces and converts them into steel particles, which undergo multiple electric heating treatments and automatic screening. During the process of forming steel particles from liquid metal, their chemical composition and particle size are strictly controlled to ensure that their mechanical properties meet various applications. There is the strictest quality management in every production process, and the steel balls produced have a tight internal organization, are not easily broken, have uniform particle size distribution, appropriate hardness, strong impact resistance, and long service life.

不锈钢丸

STAINLESS STEEL SHOT



所有原材料供应商均按照 ISO 质量体系严格控制，进厂的金属盘圆仍然依据标准检验分析。在拉拔前对表面进行严格的清洗（清洗剂或械），遵循材料的力学性能精准控制拉拔过程，钢丝表面 Ra 值从盘圆的几微米降低到 1.0 微米左右，自主研发的静音自动切割机将钢丝切割成长径一致的钢丸粒，长径比大于 2 的丸粒比例控制在 5% 以下。依据用户要求经过循环磨圆达到 G1、G2、G3 标准，最后对成型钢丸筛选分级确保丸粒尺寸一致性，钢丸尺寸精度严格控制在 $\pm 0.05\text{mm}$ 范围，充分满足用户对切丸尺寸的精确要求。

All raw material suppliers are strictly controlled according to the ISO quality system, and the incoming metal coils are still inspected and analyzed according to the standard. Before drawing, the surface is strictly cleaned (with cleaning agents or equipment), and the drawing process is precisely controlled according to the mechanical properties of the material. The Ra value of the steel wire surface is reduced from a few microns of the disc to about 1.0 micron. The self-developed silent automatic cutting machine cuts the steel wire into steel pellets with consistent length and diameter, and the proportion of pellets with a length to diameter ratio greater than 2 is controlled below 5%. According to user requirements, the steel shot is subjected to circular grinding to achieve G1, G2, and G3 standards. Finally, the formed steel shot is screened and graded to ensure consistency in shot size. The accuracy of the steel shot size is strictly controlled within $\pm 0.05\text{mm}$, fully meeting the user's precise requirements for cutting shot size.

SERVICE
服务



为客户在选材和加工工艺方面提供技术支持
为客户提供更全、更好、更快的一站式整体服务解决方案
为客户创造价值的合作中实现共赢

Provide technical support to customers in material selection and processing technology
Provide customers with a more comprehensive, better, and faster one-stop integrated service solution
Realize win-win cooperation in creating value for customers

产品包装

双层覆膜
我们的包装

无覆膜
同行包装

防水防潮
我们的包装

不防水防潮
同行包装

包装完胜

抛光前后对比

Before

产品抛光前

After

产品抛光后

Before

工件抛光前

After

工件抛光后

效果完胜

物流方面

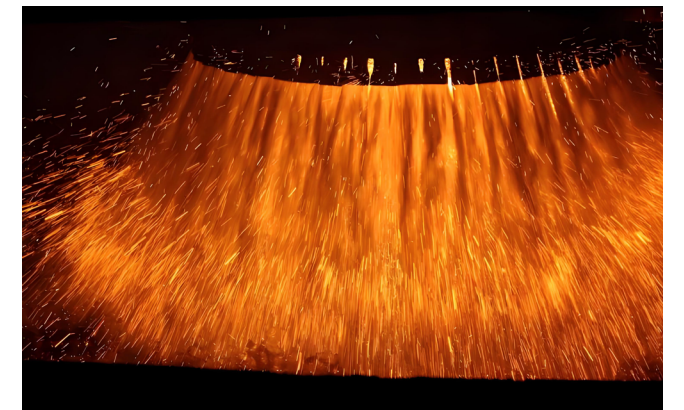
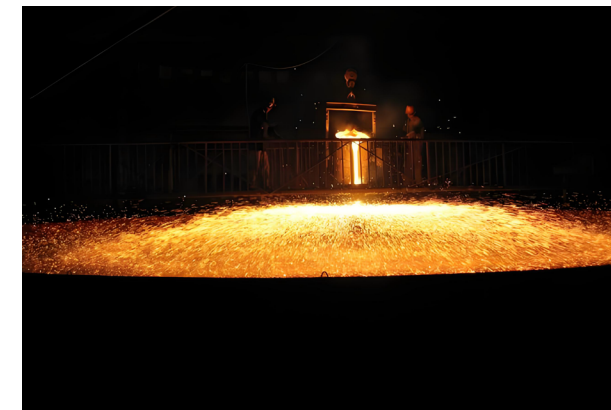
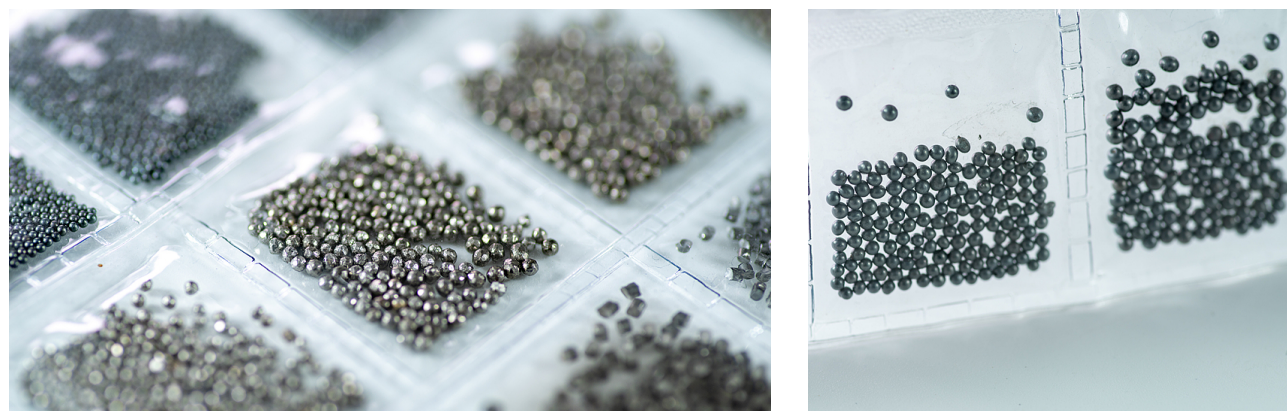
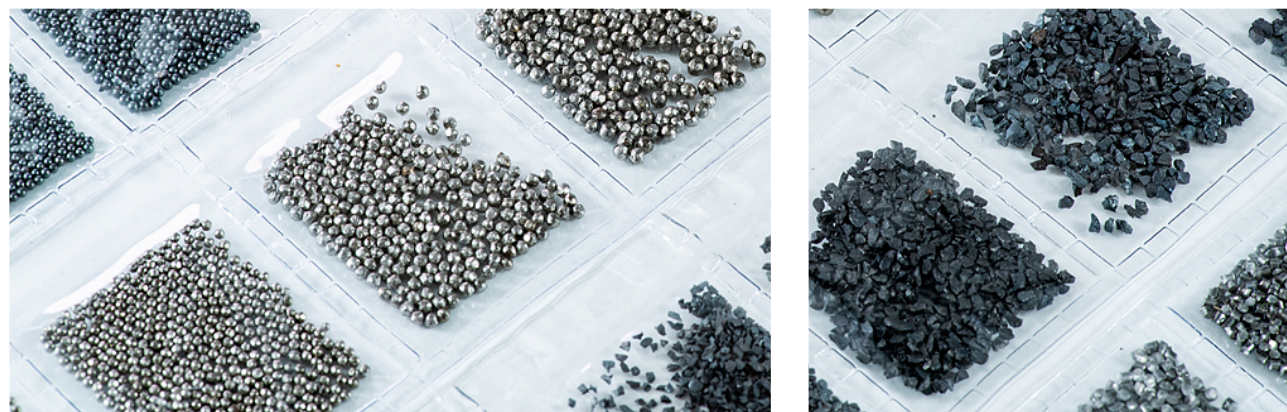
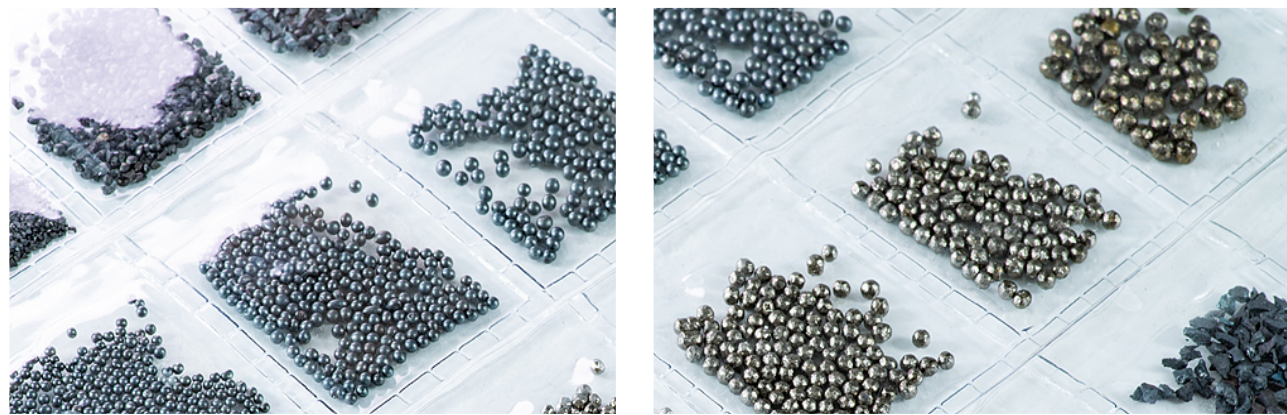
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