

金田铜棒

JINTIAN COPPER ROD



卓越金田·匠心智造

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NINGBO JINTIAN COPPER (GROUP) CO., LTD.

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GROUP INTRODUCTION

集团介绍

宁波金田铜业（集团）股份有限公司（以下简称：公司）始建于1986年，是国内规模较大的知名铜加工企业。

公司产业涵盖铜加工、高新材料、建筑材料等领域，下辖二十几家子公司，产品结构合理、品类齐备，铜合金板带、铜合金管、线、棒及阴极铜、漆包线、钕铁硼磁性材料等主要产品产量均居行业前列，并被评为浙江省名牌产品。

公司设立了国家认定企业技术中心、国家级博士后科研工作站和国家认可实验室，主持参与多项国家及行业标准制定，凭借先进的铜精深加工技术，获得省级以上科技进步奖10余项。公司注重环境保护和生态建设，强化精益管理及持续改进，先后通过了ISO9001、ISO45001、ISO14001等多项体系认证，获得“全国工业旅游示范点”、“浙江省创新型试点企业”、“浙江省转型升级引领示范企业”、“省工业行业龙头骨干企业”、

“宁波市首届市长质量奖”、“市‘两化’融合标杆企业”等荣誉称号。

公司始终坚持“依法经营、诚信经营、自主创新、科学发展”的经营理念，以“学习、团队、诚信、责任、开放”为核心价值观，倡导“家庭式的人际关系，学校式的教育培训”，注重用先进文化凝聚人、培育人、激励人、关爱员工、视员工为合作伙伴。公司先后被评为AAA级资信企业、全国“守合同，重信用”单位、“全国模范劳动关系和谐企业”、“全国模范职工之家”、“省级文明单位”。

在未来的发展中，公司将沿着“规模化、平台化、智能化、国际化、绿色化”的发展之路，继续贯彻落实科学发展观，不断创新发展模式，持续优化产业布局和产品结构，加大科技创新力度，加快转型升级步伐，为实现“创造客户价值，打造百年公司，成为行业标杆，为中国工业强国做贡献”的使命愿景而努力奋斗。

www.jtgroup.com.cn

Ningbo Jintian Copper Industry (Group) Co., Ltd. (hereinafter referred to as: the company) was founded in 1986, is a large-scale well-known copper processing enterprises in China.

The company's industry covers copper processing, high-tech new materials, building materials and other fields. It has more than 20 subsidiaries under its jurisdiction. The product structure is reasonable and the types are complete. The main products such as copper alloy strips, copper alloy tubes, wires, rods and cathode copper, enamelled wires, Nd-Fe-B magnetic materials and so on are all in the forefront of the industry, and are rated as Zhejiang famous brand products. Product.

The company has set up the National Certified Enterprise Technology Center, the National Postdoctoral Research Station and the National Accredited Laboratory, and has been responsible for the formulation of many national and industrial standards. With advanced copper deep processing technology, it has won more than 10 awards for scientific and technological progress at or above the provincial level. The company pays attention to environmental protection and ecological construction, strengthens lean management and continuous improvement. It has passed the certification of ISO 9001, ISO 45001, ISO 14001 and other systems successively. It has been awarded "National Industrial Tourism Demonstration Point", "Innovative Pilot Enterprise in Zhejiang Province", "Leading Demonstration Enterprise in Zhejiang

Province's Transformation and Upgrading", "Industry Dragon of Zhejiang Province". Honorary titles such as skull enterprises, Ningbo First Mayor's Quality Award, and City's Benchmarking Enterprise of Integration of "Two Modernizations".

The company always adheres to the business philosophy of "managing according to law, doing business in good faith, innovating independently and developing scientifically", takes "learning, team, honesty, responsibility and openness" as its core values, advocates "family-style interpersonal relationship, school-style education and training", and pays attention to cohesion, cultivation, motivation and customs with advanced culture. Love employees and regard them as partners. The company has been awarded AAA-level credit enterprise, national "abide by contract, respect credit" unit, "national model harmonious labor relations enterprise", "national model worker's home" and "provincial civilized unit".

In the future, the company will follow the development path of "scale, platform, intellectualization, internationalization and greening", continue to implement the scientific concept of development, constantly innovate the development model, continuously optimize the industrial layout and product structure, increase scientific and technological innovation, accelerate the pace of transformation and upgrading, and achieve "creation". Customer value, to build a century-old company, to become the industry benchmark, to contribute to China's industrial power "mission vision and strive hard.



大道至简
千锤百炼

COMPANY INTRODUCTION

公司介绍

金田铜棒公司为宁波金田铜业（集团）股份有限公司铜棒材生产、经营主体，成立于1986年，拥有生产车间约5万平方米，固定资产超过5500万元。

经过30多年的发展与沉淀，公司已成为全球领先的铜加工制造基地，是国内最大的铜棒生产企业，拥有连铸、挤压、浇铸三大工艺技术，主要生产HPb58-2A、HPb59-1、C3604、低铅环保铜、DZR耐腐蚀黄铜和抛光铜锭等系列产品，荣获了“浙江省名牌产品”等荣誉称号。公司产品符合德国PED产品认证标准，广泛应用于阀门锁具、空调部件机械五金和建筑水暖等行业，已与中国联盟集团、九牧厨卫、日丰企业集团等多家知名企业建立了良好的合作关系。

在“创造客户价值，打造百年公司，成为行业标杆，为中国工业强国做贡献”的使命愿景牵引下，公司秉承“天天求变、永不自满、勇于竞争、追求卓越”的企业精神，坚持走循环经济和新型工业化和谐发展道路，专注于铜加工先进技术的研究，自主开发的“大吨位电炉熔炼—潜液转流—多流多头水平连铸技术和设备”，荣获“国家科技进步一等奖”。公司拥有一流的管理水平和人才队伍，全面通过了ISO9001:2015质量管理体系、ISO14001:2015环境体系及ISO45001:2018职业健康安全管理体系认证，引进了日本、台湾、瑞士等国家先进的制造设备和检测仪器，建成多条现代化的水平连铸和挤压生产线，2018年公司铜棒材产能总计20.70万吨。

面向未来，公司将坚持“依法经营、诚信经商、自主创新、科学发展”的经营理念，讲质量、守诚信、铸品牌，以市场为导向，以客户为中心，坚持科技兴企，加快转型升级，优化产品结构，提升产品品质，致力成为全球最大的铜棒供应商，为实现“世界级500强”的金田梦而不懈奋斗！



Jintian Copper Rod Company is the business entity of Ningbo Jintian Copper (Group) Co., Ltd for the production of copper rod. Jintian Copper Rod Company was established in 1986 and has a production workshop of 50,000 square meters and fixed assets worth 55 million CNY.

After more than 30 years of development, the company has become the world's leading copper processing and manufacturing base. Jintian Copper Rod Company is the largest copper rod manufacturer in China. The three major processing technologies applied in the production are continuous casting, extrusion and casting. The company's main products include HPb58-2A, HPb59-1, C3604, low-lead environmentally friendly copper, DZR corrosion-resistant brass and polished copper ingot strips. The products have received the honorary title of "Famous Brand Products of Zhejiang Province". The company's products meet the German PED product certification standards, and are widely used in valve locks, air-conditioning components, mechanical hardware and plumbing. Jintian Copper Rod Company has established good cooperation with many famous enterprises such as Lesso Group, Jomoo and Rifeng Group.

Through the Jintian Group's mission of "Create customer value, Build a century-old company, Become a benchmark in the industry, and Contribute to China's industrial growth" and the enterprise spirit of "Seek change everyday, Never be self-satisfied, Dare to innovate, Pursue excellence", the company adheres to further develop circular economy and new industrialization. The company emphasizes the importance of research on advanced copper processing technology, and the company's self-developed

"large-tonnage electric smelting furnace – submersible- & multi-flow, multi-head horizontal continuous casting technology and equipment" won the "National Scientific and Technological Progress First Prize". The company has a first-class management team and talented personnel. The company has passed ISO9001:2015 Quality management system, ISO14001:2015 Environmental management system and ISO45001:2018 Occupational health and safety management system certifications. The company has imported advanced manufacturing equipment and testing instruments from Japan, Taiwan, Switzerland and other countries to build several modern horizontal continuous casting and extrusion lines. In 2018, the company's copper rod and wire production capacity totaled 207,000 tons.

In the future, the company continues to follow its business philosophy of "Operate according to law, Do business with integrity, Innovate independently, Contribute to scientific development". In addition, the company is committed to becoming the world's largest supplier of copper rods and work towards Jintian Group's dream of becoming one of Global 500 companies through quality, integrity, brand building, market-oriented & customer-centric attitude, relying on science and technology, accelerating transformation & upgrading, optimizing product structure and improving product quality.

ENTERPRISE'S HONOR

企业荣誉



营造国际品牌 构筑百年企业
Elevate an international brandname
Construct a centenary enterprise



PRODUCTION STRENGTH

生产实力



挤压机专用熔铸炉 EXTRUDER DEDICATED MELTING FURNACE



熔炼车间 Melting workshop



联合拉拨机 Joint puller

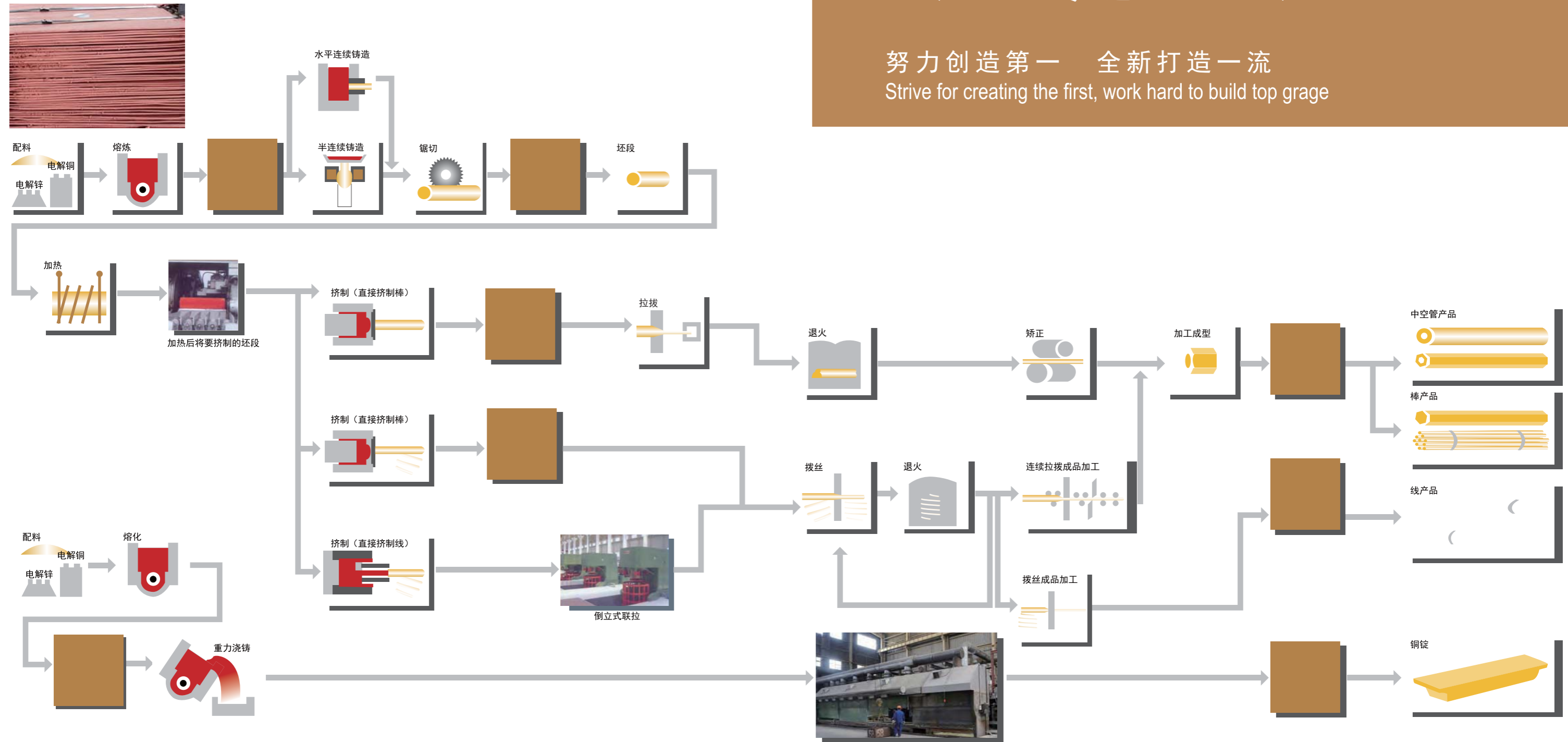


大吨位反向挤压机 Large tonnage reverse extruder

走精益生产之路 尽全力消除浪费
Process efficiently and precisely to eliminate waste

TECHNOLOGICAL PROCESS

工艺流程



没有质量就没有一切

努力创造第一 全新打造一流
Strive for creating the first, work hard to build top grade

QUALITY CONTROL & ASSURANCE

质量管理 & 品质保证

精益生产，品质为先。专门的质检机构，专业的检测中心，先进的测试设备，为金田集团构建起了科学完善的质量控制体系。金田集团已通过ISO9001:2015质量认证和ISO14001:2015环境认证，并获得了UL、ASTM、EN、TUV等国际标准认证。

Keep meliorating in the production. Quality is above all. The specialized QC department, the professional test center, the advanced test equipment, etc. Have provided Jintian Group with a scientific & perfect QC system. Jintian Group has been ISO9001:2015 certified for quality and ISO14001:2015 certified for environment protection, furthermore, has attained international approvals including UL, ASTM, EN, TUV certifications.



PRODUCT INTRODUCTION

产品简介



LOW-LEAD ENVIRONMENTALLY FRIENDLY COPPER

无铅环保铜棒



COPPER BRASS INGOT RODS

抛光铜锭

特A级铜锭 COPPER BRASS INGOT RODS

无铅环保铜棒 LEAD-FREE ENVIRONMENTAL PROTECTION COPPER ROD

牌号 Alloy grade	化学成份 % Chemistry componet %											
	Cu	Pb	Al	Fe	Ni	Sn	Si	Bi	P	Zn	其它杂质总和	
C28500	57.0~59.0	≤0.25	≤0.10	≤0.10							余量	
C27450	61.0~64.0	≤0.25		≤0.35							余量	
C46400	59.0~62.0	≤0.20		≤0.10		0.50~1.0			≤0.20		余量	
H62	60.5~63.5	≤0.08		≤0.15							余量	≤0.5
H65	63.0~68.5	≤0.09		≤0.07							余量	≤0.45
HSn62-1	61.0~63.0	≤0.10		≤0.10		0.70~1.10					余量	≤0.30
HBi59-1	58.0~60.0	≤0.10		≤0.20		≤0.20		0.80~2.0			余量	≤0.50

牌号 Alloy grade	化学成份 % Chemistry componet %										
	Cu	Pb	Al	Fe	Ni	Sn	Si	Bi	As	Zn	其它杂质总和
特A级铜锭	59.0~60.3	1.0~1.8	0.5~0.75	≤0.15	≤0.1	≤0.15	≤0.03	≤0.02	≤0.01	余量	≤0.2

材料特征 MATERIAL CHARACTERISTICS

无铅环保 (Pb≤0.25%)
Lead-free environmental protection (Pb≤0.25%)

优秀的机械性能
Excellent mechanical properties

优秀的热加工性能
Excellent thermal processing performance

良好的机加工性能
Good machining performance

优秀的抗应力腐蚀性能
Excellent resistance to stress corrosion

DZR铜锭 DZR COPPER INGOT

牌号 Alloy grade	化学成份 % Chemistry componet %										
	Cu	Pb	Al	Fe	Ni	Sn	Si	Bi	As	Zn	其它杂质总和
DZR铜锭	61.0~64.0	0.8~2.5	0.5~0.8	≤0.5	≤1	≤1.0	≤0.05	≤0.05	0.04~0.25	余量	≤0.5

用途 USAGE

水暖五金、水表、各种阀门、管道接头、供水管配件等涉水器件。适用于自动车床、数控车床加工有生态环保和卫生安全要求等系列产品；如电子、电讯、电气接插件、联接件，五金、照相、家电、饮用水工程的零部件。

Water heating hardware, water meters, various valves, pipe joints, water supply pipe fittings and other wading devices. Applicable to automatic lathes, CNC lathe processing, eco-friendly and hygienic safety requirements; such as electronics, telecommunications, electrical connectors, connectors, hardware, photography, home appliances, drinking water engineering parts.

无铅铜锭 LEAD-FREE COPPER INGOT

牌号 Alloy grade	化学成份 % Chemistry componet %										
	Cu	Pb	Al	Fe	Ni	Sn	Si	Bi	As	Zn	其它杂质总和
铋无铅黄铜锭	61.0~63.0	≤0.2	0.5~0.8	≤0.3	≤0.3	≤0.4	≤0.05	0.40~1.0	≤0.02	余量	≤0.03
硅无铅黄铜锭	61.0~64.0	≤0.2	0.5~0.8	≤0.1	≤0.1	≤0.15	0.5~0.7	0.02	≤0.02	余量	≤0.03

RoHS指令

RoHS是由欧盟立法制定的一项强制性标准，它的全称是《关于限制在电子电气设备中使用某些有害成分的指令》(Restriction of Hazardous Substances)

金属材料需测试四种有害金属元素，即Cd镉、Pb铅、Hg汞、Cr6+六价铬。要求镉小于100ppm、铅小于1000ppm、汞小于1000ppm、六价铬小于1000ppm。对于铜合金要求铅小于40000ppm即可。

RoHS Directive

RoHS is a mandatory standard enacted by EU legislation, and its full name is the Restriction of Hazardous Substances (Restriction of Hazardous Substances). Metal materials need to be tested for four harmful metal elements, namely Cd cadmium, Pb lead, Hg mercury, Cr6+ hexavalent chromium. It is required that cadmium is less than 100 ppm, lead is less than 1000 ppm, mercury is less than 1000 ppm, and hexavalent chromium is less than 1000 ppm. For copper alloys, lead should be less than 40,000 ppm.

REACH法规

REACH是欧盟法规《化学品的注册、评估、授权和限制》(REGULATION concerning the Registration, Evaluation, Authorization and Restriction of Chemicals)的简称，是欧盟建立的，并于2007年6月1日起实施的化学品监管体系。

铜合金内一般不含REACH法规中关注物质，但需要关注包装物与标识用材料。

REACH Regulations

REACH is the abbreviation of the REGULATION concerning the Registration, Evaluation, Authorization and Restriction of Chemicals, which was established by the European Union and implemented on June 1, 2007. Product supervision system. Copper alloys generally do not contain substances of interest in the REACH regulation, but attention needs to be paid to packaging materials and marking materials.

接受客户成分定制服务 Accept customer component customization services



ANTI-DEZINCIFICATION COPPER ROD 抗脱锌铜棒

抗脱锌铜棒 ANTI-DEZINCIFICATION COPPER ROD



TIN ZINC LEAD BRONZE 锡锌铅青铜

锡锌铅青铜 TIN ZINC LEAD BRONZE

牌号 Alloy grade	化学成份 % Chemistry componet %										
	Cu	Pb	Al	Fe	Ni	Sn	Mn	Bi	As	Zn	其它杂质总和
C48600	59.0~62.0	1.0~2.50				0.30~1.50			0.02~0.25	余量	
C46500	59.0~62.0	≤0.20		≤0.10		0.50~1.0			0.02~0.06	余量	0.4
C35200	60.0~63.0	1.70~2.80	≤0.05	≤0.10	≤0.30	≤0.10	≤0.10		0.02~0.15	余量	0.2
CW511L	61.5~63.5	≤0.20	≤0.05	≤0.10	≤0.30	≤0.10			0.02~0.15	余量	0.2
CW602N	61.0~63.0	1.70~2.80	≤0.05	≤0.10	≤0.30	≤0.10	≤0.10		0.02~0.15	余量	0.2
CW625N	62.0~64.0	1.20~1.60	0.50~0.70	≤0.30	≤0.20	≤0.30	≤0.10		0.02~0.15	余量	
CZ132	余量	1.70~2.80		≤0.20		≤0.20				35~37	0.5

材料特征 MATERIAL CHARACTERISTICS

优秀的抗脱锌性能 Excellent resistance to dezincification	优秀的机械性能 Excellent mechanical properties	优秀的热加工性能 Excellent thermal processing performance	良好的机加工性能 Good machining performance	优秀的抗应力腐蚀性能 Excellent resistance to stress corrosion	良好的机械性能 Good mechanical properties	优秀的耐磨性能 Excellent wear resistance	优秀的机加工性能 Excellent machining performance	优秀的耐腐蚀性能 Excellent corrosion resistance	优秀的铸造性能 Excellent casting performance
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用途 USAGE

水暖五金、水表、各种阀门、管道接头、供水管配件等涉水器件。适用于有生态环保和卫生安全要求等系列产品；如家电、饮用水工程的零部件。
Water heating hardware, water meters, various valves, pipe joints, water supply pipe fittings and other wading devices. Applicable to a series of products with ecological and environmental protection and health and safety requirements; such as household appliances, drinking water engineering parts.

抗脱锌性能

黄铜脱锌是一种典型的成分选择性腐蚀，不仅在酸性较强的介质及碱性介质中发生，也能在中性的海水、河水、工业水中发生。这种腐蚀问题严重影响了设备寿命，因此抗脱锌黄铜应运而生。目前市场上采用的抗脱锌标准有欧洲标准EN 12165、澳大利亚标准AS 2345和国际通用标准ISO6059。国内常采用的测试条件依据GB/T 10119 黄铜耐脱锌腐蚀性能的测定。我司对于抗脱锌黄铜拥有丰富的生产经验和客户生产指导能力。

Dezincification resistance

Dezincification of brass is a typical component selective corrosion, which occurs not only in acidic media and alkaline media, but also in neutral seawater, river water, and industrial water. This corrosion problem has seriously affected the life of the equipment, so anti-dezincification brass came into being. The anti-dezincification standards currently used on the market include the European standard EN 12165, the Australian standard AS 2345 and the international standard ISO 6059. The test conditions commonly used in China are based on the determination of the resistance to dezincification corrosion of GB/T 10119 brass. Our company has rich production experience and customer production guidance ability for dezincification-resistant brass.

耐应力腐蚀性能

材料在应力和腐蚀环境的共同作用下引起的破坏叫应力腐蚀。造成应力腐蚀破坏的静应力，远低于材料屈服强度，这个应力也可以是外加应力。铜合金耐应力腐蚀检验标准采用GB/T 10567.2铜及铜合金加工材残余应力检测方法，利用黄铜在氨气气氛中应力腐蚀破坏敏感性强的原理进行测试。我司通过加工工艺控制和去应力热处理工艺，材料能够通过24/72/96等各种测试实验。

Stress corrosion resistance

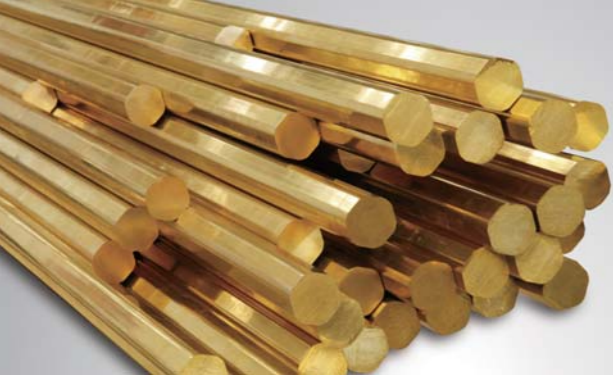
The damage caused by the combination of stress and corrosive environment is called stress corrosion. The static stress causing stress corrosion damage is much lower than the material yield strength, and this stress can also be applied stress. The stress corrosion test standard for copper alloy adopts GB/T 10567.2 copper and copper alloy processed material residual stress detection method, and the principle of strong corrosion stress corrosion resistance of brass in ammonia atmosphere is tested. Through the process control and stress-relieving heat treatment process, our materials can pass various test experiments such as 24/72/96.

材料特征 MATERIAL CHARACTERISTICS

牌号 Alloy grade	化学成份 % Chemistry componet %											
	Cu	Pb	Sn	Zn	Fe	Ni	Al	Si	Sb	P	S	
ZCuSn5Zn5Pb5 (C83600)	84.0~86.0	4.0~6.0	4.0~6.0	4.0~6.0	≤0.30	≤1.0	≤0.005	≤0.005	≤0.25	≤0.05	≤0.08	
C84400	78.0~82.0	6.0~8.0	2.5~3.5	7.0~10.0	≤0.40	≤1.0	≤0.005	≤0.005	≤0.25	≤0.02	≤0.08	
ZCuSn6Zn6Pb3	余量	2.0~4.0	5.0~7.0	5.0~7.0	≤0.40	≤1.0	≤0.05	≤0.05	≤0.30	≤0.05	≤0.08	
ZCuSn5Zn5Pb2 (C8499K)	84.0~88.0	0.2~3.0	4.0~6.0	4.0~6.0	≤0.30	0.1~0.6	≤0.01	≤0.01	≤0.10	≤0.04	≤0.40	
ZQSn7Pb7Zn3 (C93200)	81.0~85.0	6.0~8.0	6.3~7.5	2.0~4.0	≤0.20	≤1.0	≤0.005	≤0.005	≤0.35	≤0.15	≤0.08	

用途 USAGE

管道、阀门配件，耐海水零配件，制造轴套、轴承衬垫、活塞离合器，有汽车青铜之称。适用于重力铸造、数控车床加工有耐磨、耐腐蚀、弹性要求的用于汽车、拖拉机、航空、机械工业的管配件、化工机械、耐磨零件等。
Pipes, valve fittings, seawater resistant parts, bushings, bearing pads, piston clutches, and the name of automotive bronze. Applicable to gravity casting, CNC lathe processing, wear-resistant, corrosion-resistant, elastic requirements for automotive, tractor, aviation, machinery industry pipe fittings, chemical machinery, wear parts, etc.



ORDINARY BRASS

普黄铜

生产范围：圆形、方形、六角、异形
 线材：Φ1.5mm-Φ12mm
 棒材：Φ2.0mm-Φ90mm
 长度：1m-5m

主要特性

THE MAIN CHARACTERISTICS

有良好的机械性能，热态下塑性好，冷态下塑性也可以，切削性好，易钎接和焊接，耐蚀，但易产生腐蚀破裂。
 With excellent machinability, cold plasticity, hot plasticity, free cutting and resistance to corrosion, it is easy to joint and braze.

用途

USAGE

适用各种深引伸和弯折制造的受力零件，如销钉、铆钉、垫圈、螺帽、导管、散热器零件等。
 Used in a lot of deep-drawability parts, such as hardware, radiator parts, springs, bolts, rivets and machine parts.



LEAD BRASS

铅黄铜

生产范围：圆形、方形、六角、异形
 直径：Φ2.0mm-Φ106mm
 长度：1m-5m

主要特性

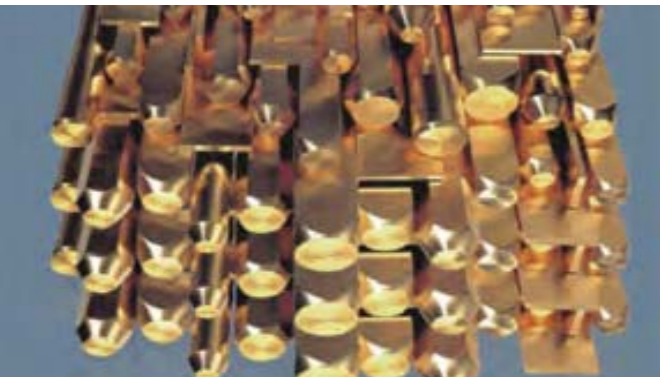
THE MAIN CHARACTERISTICS

是应用最广泛的铅黄铜，有良好的切削性能和好的机械性能，能承受冷、热压力加工，易钎接和焊接，对一般腐蚀有良好的稳定性。
 With excellent machinability, good performance in cutting, stability as to the common corrosion, can stand cold and hot-working, easy to joint and braze, Hpb59-1 A includes more impurity.

用途

USAGE

适用以热冲和切削加工制作的各种结构零件，如螺钉、垫圈、垫片、衬套、螺帽、喷嘴等。
 Used in spare parts which is hot-drawability and cutting, such as bolts, shims, screw caps, gaskets, linings.



FREE CUTTING BRASS

易切削黄铜

生产范围：圆形、方形、六角、异形
 直径：Φ2.0mm-Φ106mm
 长度：1m-5m

主要特性

THE MAIN CHARACTERISTICS

具有极好的切削、钻孔性能，强度高，耐磨性好，有良好耐腐蚀性。
 Excellent cutting and boring performance, high strength, high conductivity and corrosion-resistance.

用途

USAGE

适用于自动车床、数控车床加工产品，如五金件、电气接插件、联接件等。
 Used very common in the ordinary brass, often used in complicated cold-drawability and deep-drawability, such as shims, the shell of radiator, pipes, etc.

CHEMISTRY COMPONENT & STANDARD

产品化学成份 & 标准

成品名称 Product name	牌号 Alloy grade	化学成份 % (单值为不大于) Chemistry componet % (no more than)									
		Cu	Pb	Fe	Ni	Sn	Al	Zn	Mn	其他杂质和	杂质总和
普通黄铜 Ordinary brass	H59	57.0~60.0	0.5	0.3				余量			1.0
	H62	60.5~63.5	0.08	0.15				余量			0.5
	H63	62.0~65.0	0.08	0.15				余量			0.5
	H65	63.0~68.5	0.09	0.07				余量			0.45
	H68	67.0~70.0	0.03	0.1				余量			0.3
铅黄铜 Lead brass (企标QB)	HPb58-2C	54.0~58.0	2.0~5.0					余量			
	HPb58-2A	56.0~60.0	2.0~3.2					余量			
	HPb59-1B	57.0~60.0	1.0~2.2	0.6				余量			1.0
铅黄铜 Lead brass (国标GB)	HPb59-1	57.0~60.0	0.8~1.9	0.5				余量			
	HPb59-2	57.0~60.0	1.5~2.5	0.5		0.5		余量			1
	HPb60-2	58.0~61.0	1.5~2.5	0.3				余量			0.8
	HPb60-3	58.0~61.0	2.5~3.5	0.3		0.3		余量			0.8
	HPb62-3	60.0~63.0	2.5~3.7	0.35				余量			0.85
铅黄铜 Lead brass (美标ASTM)	C37100	58.0~62.0	0.6~1.2	0.15				余量		0.4	
	C37700	58.0~61.0	1.5~2.5	0.3				余量		0.5	
	C37000	59.0~62.0	0.8~1.5	0.15				余量		0.4	
	C36000	60.0~63.0	2.5~3.0	0.35				余量		0.5	
铅黄铜 Lead brass (日标JIS)	C3601	59.0~63.0	1.8~3.7	0.3				余量	Fe+Sn0.5		
	C3602	59.0~63.0	1.8~3.7	0.5				余量	Fe+Sn1.0		
	C3603	57.0~61.0	1.8~3.7	0.35				余量	Fe+Sn0.6		
	C3604	57.0~61.0	1.8~3.7	0.5				余量	Fe+Sn1.0		
	C3771	57.0~61.0	1.0~2.5					余量	Fe+Sn1.0		
铅黄铜 Lead brass (欧标EN)	CW612N	59.0~60.0	1.6~2.5	0.3	0.3	0.3	0.05	余量		0.2	
	CW614N	57.0~59.0	2.5~3.5	0.3	0.3	0.3	0.05	余量		0.2	
	CW617N	57.0~59.0	1.6~2.5	0.3	0.3	0.3	0.05	余量		0.2	

COMMON COPPER ALLOY TRADE MARK COMPATE TABULATION

常用铜合金牌号对照表

产品名称 Product name	对应等级 Correspond to grade							
	国标GB	国际标准ISO	美标ASTM	日标JIS	欧标EN	德标DIN	英标BS	法标NF
纯铜 Pure copper	T2	Cu-FRHC	C11000	C11000	CW004A	E-Cu58	C101	Cu-a1
	T3	Cu-FRTP	C12500	-	-	-	C104	-
磷脱氧铜 Phosphorous deoxidize copper	TP2	Cu-DHP	C12100	C1220	CW024A	SF-Cu	C106	Cu-b1
普通黄铜 Ordinary brass	H68	-	C26200	-	-	CuZn33	-	-
	H65	CuZn35	C27000	C2700	-	CuZn36	CZ107	CuZn33
	H63	CuZn37	C27200	C2720	CW508L	CuZn37	CZ108	CuZn37
	H62	CuZn40	C28000	C2800	CW509L	-	CZ109	CuZn40
铅黄铜 Lead brass	HPb63-3	-	C34500	C3560	-	CuZn36Pb3	CZ124	-
	HPb63-0.1	-	-	-	-	CuZn36Pb0.5	-	-
	HPb59-1	CuZn39Pb1	C37710	C3771	CW611N	CuZn40Pb2	CZ122	-
铅黄铜锭 Lead brass ingot	ZHD62	-	C85500	-	-	-	-	-
	ZHPbD59-1	-	-	-	-	-	PCB1	-
	ZHPbD60-2	GCuZn40Pb	-	-	-	G-CuZn37Pb	DCB3	CuZn40