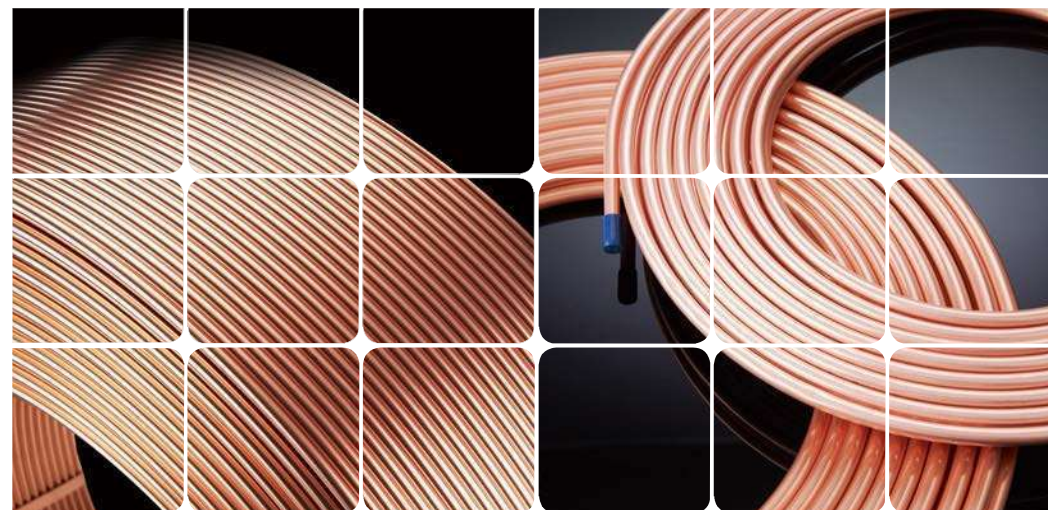
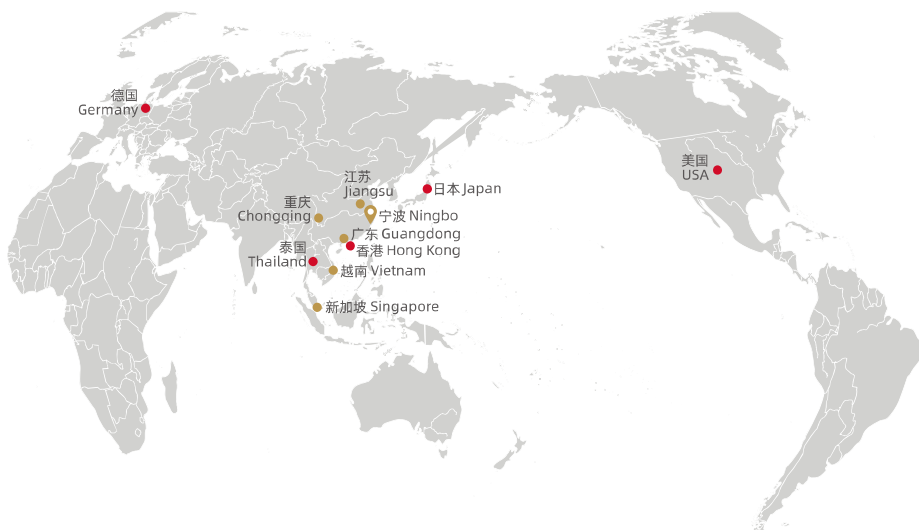




JINTIAN GROUP
THE LEADING COPPER PROCESSING
ENTERPRISE IN CHINA



WINSTON  COPPER TUBE



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GLOBAL MANUFACTURING BASE OF PRECISE COPPER TUBE

全球精密铜管生产基地



National Level High-tech Enterprises
National Level Enterprise Technology Center
National Level Laboratory

国家重点高新技术企业
国家级企业技术中心
国家级实验室

宁波金田铜业（集团）股份有限公司（股票代码：601609）始建于1986年10月，历经多年稳健发展，拥有国家级企业技术中心，并成为中国铜加工龙头企业、全国循环经济试点，国家首批“城市矿产”示范基地。

金田铜业占地2000多亩，员工8000多人，涉及产业包括铜加工产业、建筑材料产业、新材料产业及海外产业，下辖二十余家生产型及贸易型分子公司，主要产品有铜线、铜管、铜带、铜排、铜棒、合金铜棒、漆包线、阴极铜、阀门、磁钢等，是目前国内乃至世界产业链最完整的企业之一。

金田铜管事业部隶属于金田铜业，旗下有宁波金田铜管有限公司，江苏兴荣铜业有限公司，金田铜业（越南）有限公司三家子公司，拥有宁波、江苏、越南三大生产基地。该三个生产基地是专业生产各种空调制冷用铜管、环保铜水管及紫铜管接件的国家高新技术企业，主要产品包括内螺纹管、水平复绕盘管、空调直管、水道管、蚊香盘管等系列铜管产品及全系列紫铜管接件。

金田铜管事业部始终坚持“文化引导、制度保证、规范运作”的管理理念，不断夯实管理基础，在行业内率先通过ISO9001、ISO14001、ISO10012、ISO17025、ISO 45001及ASTM、UPC、NSF、TUV、日本JIS、AS/NZS等体系认证，导入TPM——全员设备维护管理项目，走“工业工程”精益生产之路，引进德国、美国、日本等国家先进的制造和检测设备，拥有多条国际领先的现代化连续轧空调管生产线及挤压拉伸生产线，获国家发明专利近二十项，为客户提供质地优良的铜管系列产品。

生产精益化、管理现代化、技术尖端化，面向世界，面向未来，金田铜管事业部将以一流的工艺、一流的设备、一流的人才，一流的服务为导向，不断调整产品结构，提高产品品质，提升服务质量，引领国际潮流，将金田铜管打造成世界知名品牌，成为全球制冷行业最值得信赖的合作伙伴。

Ningbo Jintian Copper (Group) Co., Ltd. (Stock Code: 601609) was established in October 1986 and now, after a sustained and steady development period, With the National Level R&D Centre, Jintian Group has established itself as the Leading Copper Processing Enterprise in China as reference project on “ECO FRIDENLY” and one of the first demonstration base of “City Mineral”.

Jintian Group covers an area of 1.55 million square meters, employed over 8000 people, mainly focus on Copper Processing, Building Material, New Materials, and Oversea Industries. It has more than 20 manufacturing branches and trading subordinate branches which produce copper cathode, copper and copper alloy wires, rod, strip, plate, busbar, enameled wire, copper fitting, valves, magnetic material, etc. Jintian Group is one of the most comprehensive industrial chains globally.

Jintian Copper Tube Division is affiliated to Jintian Group, including Ningbo Jintian Copper Tube Co., Ltd, Jiangsu Xing Rong Copper Co., Ltd and Jintian Copper (Vietnam) Co., Ltd, based in Ningbo, Jiangsu Province, and Vietnam. All of the three sites dedicate in tube and fitting manufacturing by ACR & Plumbing application. At present, the main products include Inner Groove Tubes (IGT), Level Wound Coils (LWC), ACR Straight Tubes, Copper Water Tubes, Pancake Coil, etc.

By management philosophy of “Guided by Culture, Guaranteed by System and Operated by Standard”, Jintian Copper Tube Division gains ISO9001, ISO14001, ISO10012, ISO17025, ISO 45001, ASTM, UPC, NSF, TUV, JIS and AS/NZS system certifications. Following the guideline of lean production of “Industrial Engineering”, it has introduced a TPM (Total Productive Maintenance) management system and incorporated advanced manufacturing and testing equipment from Germany, USA, Japan, etc. Facilitated state-of-the-art continuous casting, featuring extrusion, combined drawing, and milling for air-conditioning tubing and has registered almost 20 national patents, it is committed to the production of excellent quality copper tubing.

Based on global vision, embrace the future, Jintian Copper Tube Division will continue to optimize its products and improve its quality, service to supply the international market with up to date production processes, first-class equipment, expertise team, exemplary service levels and the highest quality products, and strive to forge a global brand as the most reliable partner within the HVACR industry.

空调直管
AIR CONDITIONING
STRAIGHT TUBE**Note:**

Features: Clean surface of internal and external, high precision of size, easy to weld and process.

Applications: Air conditioner, heat exchanger of refrigeration industry and pipeline system connection.

注解:

产品特点: 内外表面清洁, 尺寸精度高, 易焊接、加工。

应用领域: 用于空调与制冷行业的热交换器及管路系统连接。

技术参数

SPECIFICATIONS(For Reference Only)

Thickness	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	1.00	1.20	1.50
O.D														
4.76(3/16in)		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
6.00		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
6.35(1/4in)		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
7.00	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
7.94(5/16in)	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
8.00	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
9.52(3/8in)	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
10.00	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
12.00		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
12.70(1/2in)		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
14.00			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
15.00			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
15.88(5/8in)			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
16.00					◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
19.05(3/4in)					◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
22.22(7/8in)					◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
25.4(1in)									◎	◎	◎	◎	◎	◎
28.57(1-1/8in)										◎	◎	◎	◎	◎

备注: 产品执行标准 GB/T 17791、ASTM B280、JISH 3300、ASTM B88、AS/NZS 1571、AS1432、EN12735

Remark: Executive Standard of the product: GB/T 17791, ASTM B280, JIS H 3300, ASTM B88, AS/NZS 1571, AS1432, EN12735

铜水管
COPPER WATER TUBE**Note:**

Features: Clean surface of internal and external, higher pressure resistant, more sanitary and healthier than other traditional water tubes.

Applications: The best choice for the supply of water, gas and heating piping system. Widely used in hot and cold water supply and drainage for building, drinking water, gas, treatment, food and chemical industry.

注解:

产品特点: 内表清洁光滑, 耐高温、高压, 卫生健康, 经久耐用, 相比其他传统水管有更强的优势。

应用领域: 是供水、供气、供暖管道系统的最佳选择, 广泛应用于建筑冷、热给排水、直饮水、燃气、医疗、食品、化工等领域。

技术参数

SPECIFICATIONS(For Reference Only)

Nominal Outside Diameter (mm)	Material Condition Hardness / Temper	Aboveground (Table X)				Underground (Table Y)		
		Wall Thickness (mm)	Max. Working Pressure (bar)	For Cold Water (CW)	For Hot Water (HW)	Wall Thickness (mm)	Max. Working Pressure (bar)	For Cold Water (CW)
				Thickness of Plain Polyethylene Sheath (mm)	Thickness of Castellated Polyethylene Sheath (mm)			Thickness of Plain Polyethylene Sheath (mm)
15	R250 (half hard)	0.7	58	1.0	2.0	1.0	87	1.0
22	R250 (half hard)	0.9	51	1.0	2.0	1.2	69	1.0
28	R250 (half hard)	0.9	40	1.0	2.5	1.2	55	1.0
35	R290 (hard)	1.2	51	1.5	2.5	1.5	64	1.5
42	R290 (hard)	1.2	35	1.5	3.0	1.5	53	1.5
54	R290 (hard)	1.2	27	1.5	3.0	2.0	55	1.5
66.7	R290 (hard)	1.2	26	2.0	/	2.0	45	2.0
76.1	R290 (hard)	1.5	29	2.0	/	2.0	39	2.0
108	R290 (hard)	1.5	20	2.0	/	2.5	34	2.0
159	R290 (hard)	2.0	18	/	/	/	/	/

备注: 产品执行标准 EN1057

Remarks: Executive Standard of the product: EN1057



Note:

Features: Clean surface of internal and external, bright finish, high precision of size, single, double or multi-layer pancake shape, easy to transport, process and install.

Applications: Air conditioner, refrigeration industry, pipeline system connection, installation and maintenance.

注解:

产品特点：内外表面清洁、光亮，尺寸精度高，单层、双层或多层蚊香状盘绕，便于运输及加工安装。

应用领域：空调与制冷行业管路连接及维修安装。

蚊香盘管 / 技术参数

PANCAKE COIL SPECIFICATIONS(For Reference Only)

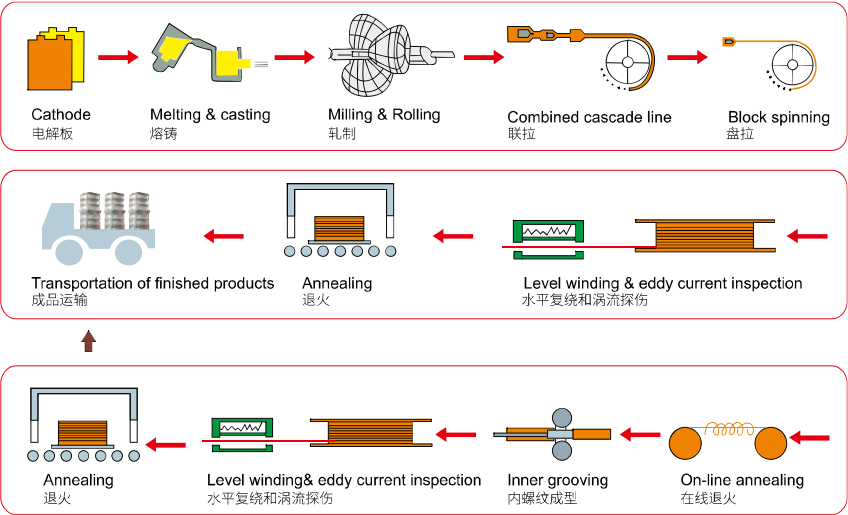
Thickness O.D	0.30 mm	0.35 mm	0.40 mm	0.45 mm	0.50 mm	0.55 mm	0.60 mm	0.65 mm	0.70 mm	0.75 mm	0.80 mm	1.00 mm	1.20 mm	1.50 mm
4.00			⊙	⊙	⊙									
4.76(3/16in)		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙		
6.00		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙		
6.35(1/4in)		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
7.94(5/16in)	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
8.00	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
9.52(3/8in)	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
12.00		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
12.70(1/2in)		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
14.00			⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
15.00			⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
15.88(5/8in)			⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
16.00					⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
19.05(3/4in)							⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
22.23(7/8in)									⊙	⊙	⊙	⊙	⊙	⊙

备注：产品执行标准 GB/T 17791、ASTM B280、JIS H3300、AS/NZS 1571、AS1432、EN12735

Remark: Executive Standard of the product: GB/T 17791, ASTM B280, JIS H3300, AS/NZS 1571, AS1432, EN12735



铜管生产流程
PRODUCTION PROCESS OF COPPER TUBE



标准参考及化学成分
STANDARD REFERENCE & MAIN CHEMICAL COMPOSITION

Material 主要化学	GB	ASTM	BSEN	JIS	Main Chemical Composition 主要化学成分(%)
Pure Copper 纯铜	T ₂	C11000	C101, C102	C1100	Cu+Ag≥99.90
Phosphorus 磷铜	TP ₁	C12000	--	C1201	Cu+Ag≥99.90 P:0.004~0.012
Deoxidized Copper 脱氧铜	TP ₂	C12200	C106	C1220	Cu+Ag≥99.90 P:0.015~0.040

机械性能
MECHANICAL PROPERTIES

Standard 标准	Product 产品	Alloy 牌号	Temper 状态	Tensile Strength 拉伸强度(MPa)	Yield Strength 抗拉强度(MPa)	Elongation 延伸率(%)	Hardness 硬度(HV/HR)	Grain Size 晶粒度(MM)
JIS H3300	Coil, straight tube 盘管, 直管	C1020	O	≥205	--	≥40	HR15T≤60	0.025~0.06
			OL	≥205	--	≥40	HR15T≤65	≤0.040
			1/2H	245~325	--	--	HT30T30~60	--
			H	≥315	--	--	HT30T30≥55	--
		C1100	O	≥205	--	≥40	--	--
			1/2H	245~325	--	--	HT30T30~60	--
			H	≥275	--	--	HRF≥80	--
			O	≥205	--	≥40	HR15T≤60	0.025~0.06
		C1201	OL	≥205	--	≥40	HR15T≤65	≤0.040
			1/2H	245~325	--	--	HT30T30~60	--
			H	≥315	--	--	HR30T≥55	--
			H	≥310	--	--	--	--
ASTM B360	Capillary 毛细管	C12000	H80	≥310	--	--	--	--
GB/T1531	Capillary 毛细管	TP1	T2	≥345	--	--	--	--
			TP2	245~370	--	--	--	--
GB/T20928	Inner-grooved tube 内螺纹管	TP2	(M)	215~270	--	≥43	--	0.015~0.025
ASTM B280	Coil, straight tube 盘管, 直管	C12200	60	≥205	--	≥40	--	0.035
			H58	≥250	--	--	--	--
ASTM B68	Coil, straight tube 盘管, 直管	C10200	50	≥210	--	≥40	--	0.015~0.040
			60	≥210	--	--	--	≥0.040
			H58	≥205	≥205	--	HT30T≤30	--
			H80	≥310	≥275	--	HR15T≤55	--
ASTM B75	Coil, straight tube 盘管, 直管	C12000	60	≥205	≥62	--	HR15T≤60; HRF≤50	≥0.040
			50	≥205	≥62	--	HR15T≤65; HRF≤55	≤0.040
			50	≥205	≥62	--	HR30T≤30	--
			H58	≥250	≥205	--	HR15T≤60; HRF≤50	≥0.040
ASTM B743	Coil 盘管	C12000	60	≥205	≥62	≥40	HR15T≤60; HRF≤50	≥0.040
			50	≥205	≥62	≥40	HR15T≤65; HRF≤55	≥0.040
			(Y)	≥275	--	--	--	--
			(Y)	245~325	--	--	--	--
GB/T17791	Coil, straight tube, pancake coil 盘管, 直管, 蚊香管	T ₂	(M)	≥205	--	≥40	--	≤0.040
			(M)	≥205	--	≥40	--	0.025~0.06
			(Y)	≥205	--	--	--	--
			(Y)	≥315	--	--	--	--
		TU ₁	(Y)	245~325	--	--	--	--
			TP	≥205	--	≥40	--	0.025~0.06
			TP ₂	≥205	--	≥40	--	≤0.040
			(M)	≥205	--	--	--	--
BS EN 12735-1	Coil, straight tube 盘管, 直管	C106	R220	≥220	--	≥40	HV540~70	--
			R250	≥250	--	≥30	HV575~100	--
			R250	≥250	--	≥30	HV5≥100	--
			R250	≥250	--	≥30	--	--



水平连铸炉 Horizontal continuous casting furnace



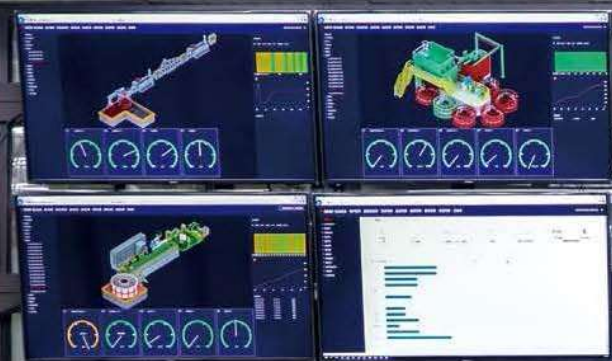
空心铸锭 Hollow billet



铣面机 Face milling machine-copper tube



联拉机 Combined drawing machine



生产实力 PRODUCTION STRENGTH

通过自动化升级和 SCADA、MES、RFID、EMS、WMS 等多系统融合应用，建设数字化工厂，推进智能制造。
By automation upgrading of equipments and multi-systems fusion application of SCADA、MES、RFID、EMS、WMS etc., Jintan is building digitalized factory, and promoting intelligent manufacturing.



盘拉机 Pulling machine



内螺纹成型机 Internal thread forming machine



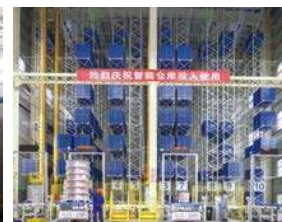
复绕机 Rewinding machine



蚊香盘成型机 Mosquito coil forming machine



退火炉 Annealing furnace



智能仓库 Smart warehouse

质量管理 & 品质保证

QUALITY CONTROL & GUARANTEE FOR ACR COPPER TUBE



Composition
analysis for
cathode copper
阴极铜元素分析

High-speed
analysis for
copper liquid
炉前成分分析

Smooth shell
demension
measurement
铜管表面检查

Smooth
tube defects
test in line
外表缺陷在线涡流探伤

Grain size
test for
finished tube
晶粒度测试

Cleanness
determination
for finished tube
清洁度测试

Mechanics
properties test
for finished products
终端产品性能测试

Defects test for
heat transfer of
high efficiency tube
高效热传导测试

荣誉证书



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 ISO 9001:2000 certified for quality and ISO14001:2004 certified for environment protection, furthermore, has attained international approvals including JIS, UL, ASTM, EN, TUV certifications.

不断改进产品质量, 推行质量第一理念。公司成立专业质检部门, 建立起专业检测中心, 引进先进的检测设备, 完善科学检测体系。先后获得 ISO 9001:2000 国际质量体系认证, ISO 14001:2008 环境管理体系认证, 通过 JIS, UL, ASTM, EN, TUV 等认证。

主要的检验项目及仪器表

PRIMARY TESTING ITEMS AND EQUIPMENT TABLE

Serial number 序号	Testing Items 检测项目	Name of the main testing equipment 主要检测仪器名称	Type/producing region 品牌
01	Electrolytic Copper Chemical Composition 电解铜化学成分检测	DC arc spectrometer 直流电弧光谱仪	Ha-12/U.S.BAIRD Ha-12/美国 BAIRD
02	Copper tube chemical composition 铜管化学成分检测	Electrospark Spectrometer 电火花光谱仪	Dv-5/U.S.BAIRD Dv-5/美国 BAIRD
03	Copper tube defects 铜管缺陷检测	Eddy Current Inspection 涡流探伤仪 (在线探伤)	GERMANY db GERMANY foerster 德国 DB GERMANY FOERSTER
04	Oxygen content 含氧量检测	Infrared Oxygen Sensor 红外测氧仪	Ro-416/U.S. LECD RO-416/美国 LECD
05	Copper tube inner face 铜管内壁检测	Chloride Ion Chromato-graph 氯离子量离子色谱仪	Dx-120/U.S.DIONEX Dx-120/美国 DIONEX
06	Grain size 晶粒度、螺旋齿形检测	Metallographic Microscope 金相显微镜	06CK-40M/Japan Aolinsasai 06CK-40M/日本 Aolinsasai
07	The internal profile 内螺纹检测	Image Mapping Table 图像映射表	SOV-2010/CHINA SOV-2010/中国
08	Computer electronic mechanical properties 机械性能微机电子检测	Ultrasonic Cleaning Machine 万能试验机 超声波清洗仪	CMT4504/CHINA TP2000/CHINA CMT4504/中国 TP2000/中国
09	Cleanness 清洁度	Electronic Scales 电子天平 (0.01毫克)	BP211 D/GERMANY BP211D/德国
10		Oil content analyzer 油分测定仪	
11		Refrigerator system water testing machine 冰箱系统水仪	
12		Vickers Sclerometer 维氏硬度计	

包装 / ACR TUBE PACKING

LWC 水平复绕盘管



Pancake Coil 蚊香盘管



Straight Tube 直管



全球销售网络 / GLOBAL SALES NETWORK



部分战略合作伙伴 HONOR PARTNER

