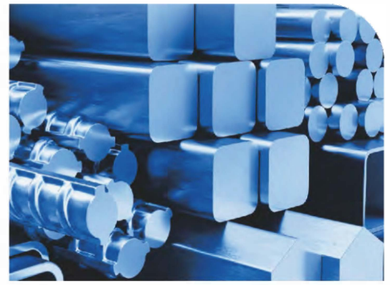
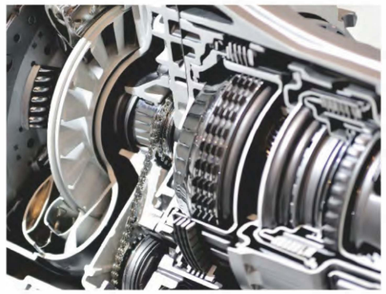
天鼎检测 DTI

ACCU-TECH ACCU-QUALITY ACCU-SERVICE

精 益 求 精






天鼎检测
DING TESTING & INSPECTION

江苏天鼎检测科技有限公司
JIANGSU DING TESTING & INSPECTION CO.,LTD
江苏省苏州市工业园区通园路58号E幢
N0.58-E,Tongyuan Road,Suzhou,Jiangsu,P.R.China
电话（Tel):+86-512-66873755　　40000-94885
网址（Web）：www.tdtia.com
电邮（e-mail): services@tdtia.com　JSTDJC@126.COM

关于天鼎

江苏天鼎检测科技有限公司(DTI)地处制造业最为发达的长三角核心区域-江苏苏州工业园区，是提供材料与产品试验分析、检验检测及技术服务的专业机构。DTI拥有综合、全面的金属及高分子材料测试能力，可以按照包括ISO/GB/EN/ASTM/AISI/ASME/JIS等全球主要标准开展各类材料检测。

DTI实验室由平均行业经验超过15年以上的骨干技术和管理团队组成，严格按照ISO/IEC17025标准建立管理体系，并取得中国合格评定国家认可委员会(CNAS)实验室认可和江苏省检验检测机构资质认定(CMA)，具备出具第三方检测报告的资质。

我们承诺严格遵守实验室质量体系管理要求，规范检测作业程序、执行检验检测标准，坚持客观独立、公平公正的原则、格守职业道德、承担相应社会责任，始终如一地向全球客户提供无与伦比的质量和安全服务。

我们的客户

中国石油 · 中国海油 CNOOC · 国家电网有限公司 STATE GRID · 中国华能 CHINA HUANENG

PHILIPS · vallourec · 上海电气 SHANGHAI ELECTRIC · 金风科技 GOLDWIND

GE · SIEMENS · ENVISION · 天顺风能 TITAN WIND

TATA · CIMC 中集 · SINOCHEM · thyssenkrupp

About DTI

Ding Testing & Inspection (DTI), located in Suzhou Industrial Park(SIP), one of the key manufacturing area in China. DTI provides testing, inspection, verification service for various industries. DTI provides Testing services according to International Standards includes IOS/GB/EN/ASTM/AISI/ASME/JIS etc.

DTI owns senior experts & management team with average more than 15 years professional expertise. DTI is a Chinese CMA & CNAS accredited laboratory with ISO/IEC 17025 quality system. Every testing & experiments are carried according to the standards and protocols strictly

We promise to strictly abide by the operating procedures, implement inspection and testing standards, adhere to the principles of objective independence, fairness and impartiality, integrity, professional ethics, and corresponding social responsibilities, consistently provide unparalleled testing & inspection services to customers worldwide.


检验检测机构
资质认定证书


CNAS
中国合格评定国家认可委员会
实验室认可证书


CNAS
LABORATORY ACCREDITATION CERTIFICATE

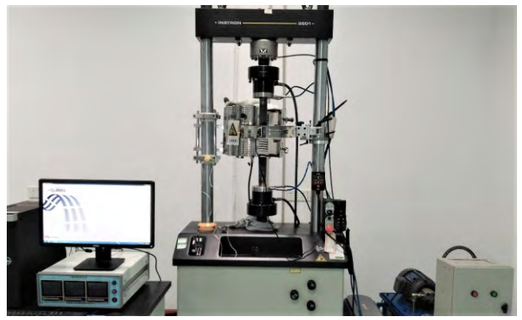

江苏省产品质量鉴定组织单位备案证书

机械性能测试　Mechanical properties Test

机械性能是金属材料的最基本性能，是各类金属产品/结构/工程的设计和选材时的主要依据，常用的机械性能包括：强度、塑性、硬度、冲击韧性、多次冲击抗力和疲劳极限等。机械性能测试是为了检验产品是否符合规范要求，同时也检验材料是否严格按照产品生产工艺流程进行生产。

The mechanical properties of metal materials are the main basis for the design and material selection of various metal products / structures / projects. The commonly used mechanical properties include strength, plasticity, hardness, impact toughness, multiple impact resistance and fatigue limit. The purpose of mechanical property test is to check whether the products meet the specification requirements, and also to check whether the materials are produced in strict accordance with the product production process.

机械性能 MECHANICAL properties		
拉伸/高温拉伸试验 Tensile test	冲击/低温冲击试验 Impact test	布氏/洛氏/维氏硬度测试 Brinell Rockwell Vickers
剪切、断裂 Shear/fracture	压缩、弯曲试验 Compression/bending test	管材展平、压扁、扩口 Drift-expending
疲劳/循环载荷 Fatigue / cyclic loading	高温持久蠕变试验 Hi-Temp Creep rupture	熔覆、粘结、结合度试验 Adhesion



化学成分分析　Element analysis

金属的元素构成及占比从最根本上决定了材料具备什么样的性能，通过化学成分分析可以确定材料的元素构成及元素占比。定量化学分析可以精确的测定给定样品中不同元素的具体含量。各种不同的检测技术可以用来测定金属或合金的组成成分。

天鼎检测拥有业内较为全面的成分分析解决方案，可满足各类材料行业成分分析的需求。

The composition and proportion of metal elements fundamentally determine what kind of performance the material has. Through chemical composition analysis, the element composition and element proportion of the material can be determined, Quantitative chemical analysis can accurately determine the specific content of different elements in a given sample. Various detection techniques can be used to determine the composition of metals or alloys.

DTI has a more comprehensive composition analysis solution in the industry, can meet the needs of various materials industry composition analysis

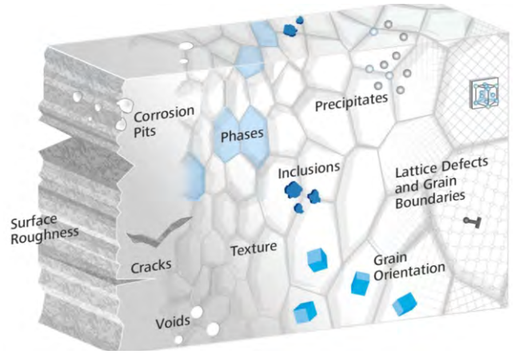
成分 ELEMENT	
碳硫 C S	高频红外碳硫分析 Carbo & Sulfur Analyzer
氧氮氢 O N H	氧氮氢分析仪 Oxygen/Nitrogen/Hydrogen Analyzer
各类元素 Elements	火花光谱法　Spark OES spectrometer 等离子体发射光谱法 ICP-OES spectrometer
微观元素分析 micro-Analysis	扫描电镜/投射电镜 SEM–EDX/TEM

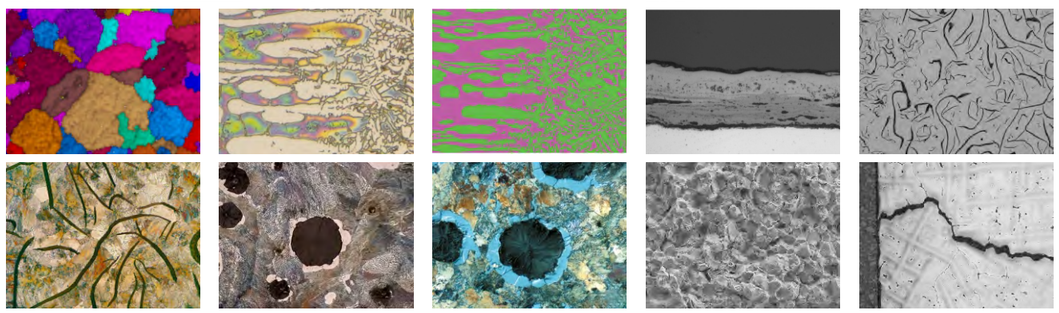
金相分析 Metallurgical analysis

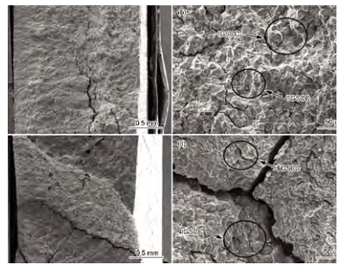
金相是研究金属或合金内部结构的科学，金相组织是反映金属金相的具体形态。金相分析是金属材料试验研究的重要手段之一，采用定量金相学原理，由二维金相试样磨面或薄膜的金相显微组织的测量和计算来确定合金组织的三维空间形貌，从而建立合金成分、组织和性能间的定量关系，并与材料的机械性能建立内在联系，为更科学地评价材料、合理地使用材料提供可靠的数据。协助企业进行材料及产品的质量控制。

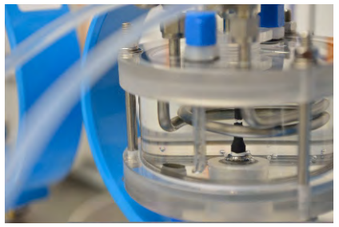
Metallurgical Analysis is the process by which any metal component is analyzed to know its Physical or chemical properties.Based on the principle of quantitative metallography, the three-dimensional morphology of the alloy structure is determined by measuring and calculating the Metallurgical microstructure of the grinding surface or film of two-dimensional Metallurgical specimen. so as to establish the quantitative relationship among the alloy composition, structure and properties, and establish the internal relationship with the mechanical properties of the material, so as to evaluate the material more scientifically Materials, reasonable use of materials to provide reliable data, and helps our client control the quality of materials and products.

金相 METALLURGICAL		
显微组织 Microstructure	低倍组织 Macrostructure	晶粒度 Grain size
非金属夹杂物 Non metallic inclusions	脱碳层 Decarburization layer	硬化层 Hardened layer









材料腐蚀试验 Corrosion Test

金属材料在广泛的应用的同时，腐蚀问题渐渐引起人们的普遍关注。金属腐蚀给国民经济造成巨大的损失，引发的各种事故对人身和公共安全造成了巨大威胁。全球每年因为材料腐蚀而报废的设备占当年世界钢铁总产量的30%，造成的经济损失远超过其它各种自然灾害引起的经济损失的总和。

DTI是专业从事材料腐蚀与防护试验技术的机构，试验能力及范围居国内前列。

Metal materials are widely used at the same time, the corrosion problem has gradually attracted people's attention. Metal corrosion causes huge losses to the national economy, and all kinds of accidents cause a great threat to personal and public safety. The equipment scrapped due to steel corrosion accounts for 30% of the world's total steel production every year. The economic losses caused by metal corrosion far exceed the total economic losses caused by other natural disasters.

DTI specialized in kinds of corrosion Testing, and is one of the advanced corrosion laboratories in China.

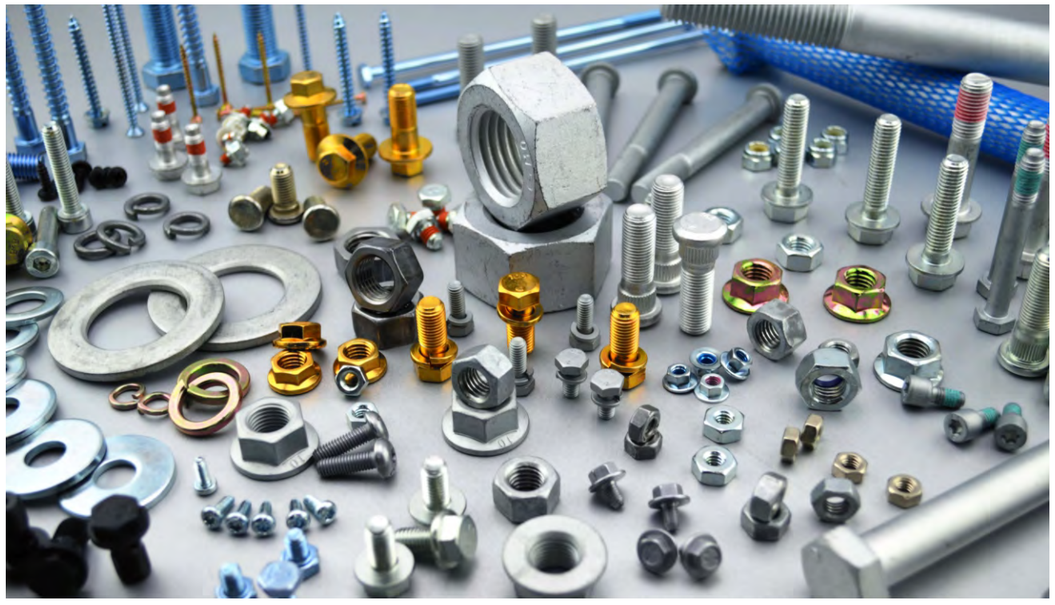
腐蚀 CORROSION		
中性/酸性/铜离子加速盐雾 NSS/AASS/CASS	循环盐雾腐蚀试验 Cyclic salt spray corrosion test	晶间腐蚀 IGC Intergranular corrosion IGC
点腐蚀/缝隙腐蚀试验 Point corrosion Crevice corrosion	模拟工况腐蚀试验SSCC Simulated corrosion test SSCC	氢致开裂 HIC Hydrogen induced cracking
沸腾氯化镁应力腐蚀试验 Stress corrosion test of boiling magnesium chloride	硫化物应力开裂 SSC Sulfide stress cracking	高温高压应力腐蚀试验Hi-temp & Hi-Pressure stress Cracking Test

紧固件性能测试 Fastener performance Test

紧固件作紧固连接用的机械零件，应用极为广泛。紧固件的性能直接影响到产品的性能,安全,使用寿命。因此紧固件的性能是决定紧固件使用性能的关键，是紧固件从材料选材，设计到生产，加工，镀膜等工序的重要依据。

The performance of fasteners directly affects the 。The performance of fasteners directly affects the performance, safety and service life of products. Therefore, the performance of fasteners is the key to determine the performance of fasteners. It is also an important basis for fastener materials selection, design, production, processing.

紧固件测试 Fastener performance		
拉伸试验 Tensile test	冲击试验 Impact test	楔负载 Wedge load
保证载荷试验 Proof load test	布氏硬度 Brinell hardness	洛氏硬度 Rockwell hardness
维氏硬度 Vickers hardness	脱碳层深度 Depth of decarburization layer	镀层检测 Coating Test



焊接工艺评定 Welding procedure qualification

焊接工艺评定（Welding Procedure Qualification，简称WPQ）为验证所拟定的焊件焊接工艺的正确性而进行的试验过程及结果评价。焊接工艺评定是保证焊接质量的重要措施，为正式制定焊接工艺指导书或焊接工艺卡提供可靠依据。

Welding procedure qualification (WPQ) is the test process and result evaluation to verify the correctness of the proposed welding procedure. Welding procedure qualification is an important measure to ensure the quality, which provides reliable basis for the formal formulation of welding procedure instruction or welding procedure card.

焊接工艺评定试验 WPQT	
测试项目	常用焊接工艺评定标准
外观检测 无损探伤 拉伸测试 弯曲测试 冲击测试 断裂测试 硬度测试 金相测试 腐蚀试验	NB/T 47014《承压设备用焊接工艺评定》
	NB/T 47016承压设备产品焊接试件的力学性能检验
	GB/T 19869.1钢、镍及镍合金的焊接工艺评定试验
	NB/T 20002.3压水堆核电厂核岛机械设备焊接规范 第3部分 焊接工艺评定
	RCC-M压水堆核岛机械设备设计与建造规则
	ASME BPVC-IX-2019锅炉及压力容器规范 第Ⅸ卷
	ISO 15614金属材料焊接程序的规范和鉴定.焊接程序试验
	EN ISO 15614 金属材料焊接程序的规范和鉴定.焊接程序试验
	BS EN ISO 15614金属材料焊接程序的规范和鉴定.焊接程序试验
	AWS D1.1/D1.1M 钢结构焊接规程
	AWS D1.5/D1.5M 桥梁焊接
	中国船级社材料与焊接规范 CCS规范
	英国劳氏船级社船舶入籍规范和规则 LR规范
	日本船级社钢质船舶入级与建造规范 NK规范
	美国船级社材料与焊接规范 ABS规范
	DNV GL船级社船舶入级规范 DNV GL规范
	法国船级社钢质船舶入级规范 BV规范

高分子材料及环境可靠性试验 Poly-material Test & Environmental & Reliability Test

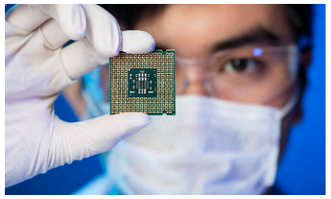
高分子材料按特性分为橡胶、纤维、塑料、高分子胶粘剂、高分子涂料和高分子基复合材料。高分子材料的检测可分为成分检测，理化指标检测、稳定性检测等几大类。

DTI拥有试验能力全面的环境及可靠性试验实验室，可以为高分子材料，汽车零部件，电子电气，材料表面应用等提供全面的环境及可靠性试验服务。

Polymer materials includes rubber, fiber, plastic, polymer adhesive, polymer coating and polymer matrix composite according to their characteristics, the testing of polymers includes content testing, physical & chemical characteristic, electrical characteristic, etc.

DTI owns environmental & reliability laboratory,and can provide comprehensive testing capability for Poly-materials,Auto parts,E&E products...

试验能力 Testing Scope		
拉伸 tensile test	撕裂实验 Tear test	弯曲试验 Bending test
热变形维卡软化点试验 Vicat softening point	简支梁 (CHARPY) 冲击 Charpy impact	悬臂梁 (IZOD) 冲击 Izod impact
熔体流动速率 Melt flow rate	密度 Density	硬度 hardness
□□□□□ Temperature and humidity testing	温度冲击 Thermal shock	交变盐雾试验 Cyclic Salt spray test
漆膜性能 Coating/Film test	日晒老化 Xenon/UV artificial light test	色度/光泽度 Color/ glossiness



产品质量鉴定 Product Quality Identification

产品质量鉴定是指鉴定组织单位组织鉴定专家，运用科学技术或专业知识对争议产品的质量专门性问题进行调查、分析、鉴别、判断，并提供鉴定意见的活动。天鼎检测具有江苏省产品质量鉴定组织机构的资质，鉴定业务覆盖以下领域：

Product quality accreditation refers to the activity that accredited organization units organize accredited experts to investigate, analyze, identify and judge the quality specific problems of disputed products by using science and technology or expertise, and provide accredited opinionsDTI has the qualification to carry out quality accreditation activities issued by Jiangsu Provincial Quality Association. And accreditation business covers the following fields:

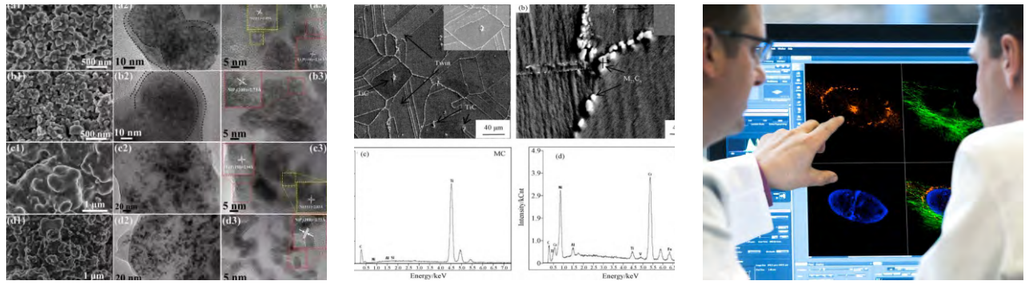
鉴定领域 Fileds		
金属材料及制品 Metal materials and products	通用机械设备 General purpose mechanical equipment	环保设备 Environmental Protection Equipment
化工装备 Chemical Equipment	热能动力设备 Thermal power plant	纺织设备 Textile equipment
专用设备 Special Equipment	轻工机械 Light Industry Machinery	特种设备 Special Equipment
交通运输设备 Transportation Equipment	电气产品 Electrical products	仪器仪表 Instrumentation
化工产品 Chemical Product	建筑材料及制品 Building materials and products	电子电器 Electronic appliance

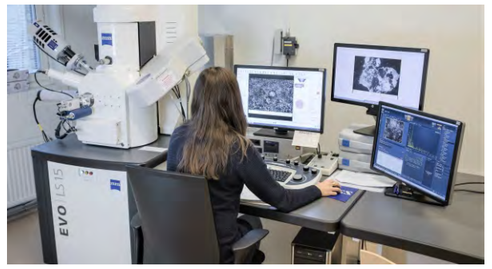
材料检验及检测咨询服务 Material Testing & Insection Laboratory Management Consulting

天鼎检测的管理团队与顾问团队拥有平均15年以上的实验室技术及质量体系管理，材料实验室管理方面有着10年以上的信息化建设经验，可以为质控/检验/检测/监造等管理提供强大的信息化咨询及系统开发服务、为各类企业提供检测检验方法的开发，以及为企业内部质检部门及人员提供检测技术培训服务。

DTI team owns average of over 15 years experiences of laboratory technology and quality system management, and more than 10 years experiences of information management in material laboratory, which can provide powerful information consultation and system development services for quality control / inspection / detection / manufacturing supervision management, provide detection and inspection method development and internal training services for various companies.

天鼎检测可提供 DTI provides:	
实验室质量体系认可咨询及辅导 Consultation and guidance for CMA and CNAs accreditation	材料质控/检验/检测/监造信息管理系统(LIMS)： Material quality control / inspection / testing / manufacturing supervision information management system (LIMS)
材料检测技术培训服务： Material testing technology training service:	检验检测实验室外包服务： Outsourcing service of testing laboratory





失效分析/研发分析 ... Failure/R&D Analysis

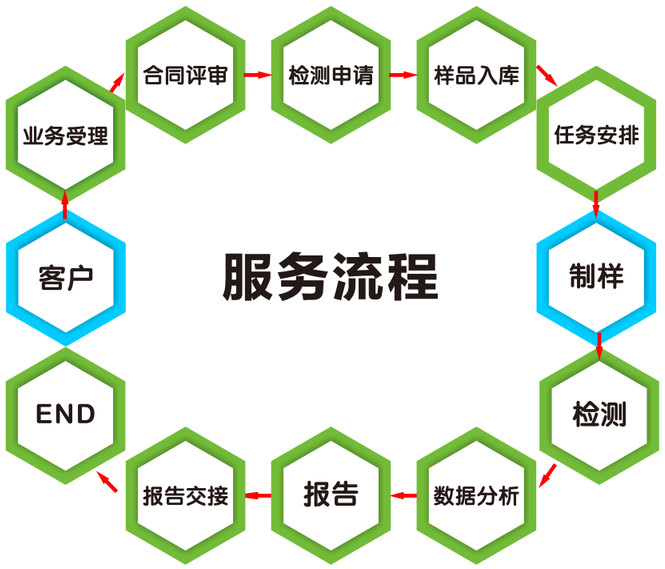
天鼎检测拥有多名材料学专家、材料及材料应用高级工程师，与国内顶尖的高校和科研院所有着密切的科研合作。同时依托于强大的材料检验和验证能力。

DTI has a number of material experts, senior engineers of materials and materials application. It has close cooperation with domestic top universities and scientific research institutes. Relying on its strong ability of material inspection and verification.

研发分析/失效分析	
材料及零部件的功能及耐久性验证 Function and durability verification of materials and parts	材料及结构的有限元分析 FEA（finite element analysis）of material mechanism
行业独有的双相/多相金属材料分析技术 Unique dual / multiphase material analysis technology	先进金属/复合材料的成分/物相剖析 Analysis ofcomposition/phase/composites
先进加工工艺的微观分析及验证 Micro analysis and verification of advanced processing technology	失效分析 Failure Analysis

独立公正 专业诚信 精益求精 真诚服务

INDEPENDENT IMPARTIAL EXPERTISE TRUSTWORTHY ACCURATE SINCERE



服务中国 服务全球

我们服务于如下工业领域：

石油　石化
风电　海工
船舶　港口
航空　核电
装备　轨道