



中车唐山公司

世界—流轨道交通高端装备研制基地

CRRC Tangshan — Worldwide First-class R&D and Manufacturing
Base of High-end Railway Transportation Equipments

中车唐山机车车辆有限公司

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中车唐山机车车辆有限公司

CRRC TANGSHAN CO.,LTD.



仿真分析和虚拟现实平台
Simulation analysis and virtual reality platform



中车唐山公司——中国轨道装备制造业的发祥地

CRRC Tangshan—Birthplace of China's Railway Equipments Manufacturing Industry

中车唐山机车车辆有限公司(简称中车唐山公司)的前身是中国铁路机车车辆工业的摇篮——始建于1881年的唐山机车车辆厂。在中车唐山公司跨世纪的发展历程中,曾诞生了中国第一台蒸汽机车——“中国火箭”号;第一辆客车——“蓝箭”号;制造出中国第一批货车、第一列时速350公里动车组。.....中车唐山公司创造出中国铁路机车车辆工业史上的一个又一个第一,为中华民族培养了数以万计坚韧有为的铁路工业栋梁。

CRRC Tangshan Co., Ltd. (hereinafter called CRRC Tangshan) is the cradle of China's locomotive and rolling stock industry. Its predecessor - Tangshan Locomotive & Rolling Stock Works was founded in 1881 as the first railway factory in China. During its trans-centennial development course, CRRC Tangshan gave birth to China's first steam locomotive named "Rocket of China", the first railway passenger car named "Deluxe Palace Coach", the first batch of freight wagon of China, the first 350 km/h EMU, to name just a few. CRRC Tangshan not only created lots of "First" for China's locomotive and rolling stock industry, but also fostered hundreds of thousands of railway talents for China.

得天独厚的地理位置

Advantaged Geographic Location

中车唐山公司本部占地230余万平方米,员工1万余人。公司坐落于河北省唐山市丰润区,距首都北京、直辖市天津和海滨城市秦皇岛分别只有150公里左右,具有便利的铁路、公路和海运优势。

The headquarters of CRRC Tangshan covers an area of more than 2.3 million m², and the number of its staff members exceeds ten thousand. CRRC Tangshan is located in Fengrun District, Tangshan City, Hebei Province, only 150 km from the capital city Beijing, Municipality Tianjin, and the coastal city Qinhuangdao respectively. So, CRRC Tangshan features the advantaged geographic location for railway, highway and seaway transportation.

传承百年造车底蕴、引领市场的产品研发设计

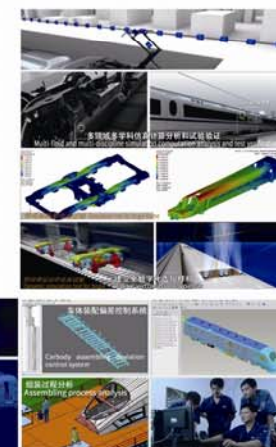
Carrying Forward the Centennial Railway Vehicle Manufacturing Tradition, Forging Market-leading R&D and Design Capability for Railway Products

作为国家首批创新型企业的中车唐山公司,拥有国家级企业技术中心,国家级检测校准实验室,国内领先的数值模拟和仿真试验平台,组建了博士后科研工作站、院士流动工作站,建立了具有自主知识产权的中国高端轨道装备技术和标准体系。

中车唐山公司的新产品开发采用计算机三维设计,具备时速350公里及以上速度等级高速动车组系统集成、铝合金车体、转向架、列车网络控制系统等关键技术和城轨、地铁列车的自主创新能力。中车唐山公司雄厚的技术力量和现代化的设计手段,能迅速满足用户对多品种轨道交通装备的需求。

As one of the first group of national innovation-oriented enterprises, CRRC Tangshan owns national-level enterprise R&D Center, national-level Checking & Calibrating Laboratory, and nationwide leading numerical simulation and emulating test platform. CRRC Tangshan has set up postdoctoral research station, academician temporary working station, as well as established technology and standard system with proprietary intellectual property rights (IPR) for China's high-end railway equipments.

CRRC Tangshan adopts computer 3D design for its new products development. CRRC Tangshan has acquired the key technologies including system integration, aluminum alloy carbody, bogie, and train network control system, etc. of EMU of 350 km/h and above, and has the independent innovation capability for urban railcars and metro cars. Upon its powerful technology and modern design methods, CRRC Tangshan can timely meet the clients' demand for various kinds of rail transit equipments.





国际领先的产品制造平台

International-leading Product Manufacturing Platform

中车唐山公司适应市场需求, 构建了以铝合金车体、钢(不锈钢和碳钢)车体两条生产线为主导的, 以高速动车组、中低速普通客车、城轨车、特种车构成的“两线四系”产品制造平台, 并已形成月产12列高速动车组、检修8列高速动车组, 年制造城轨车600辆、普通铁路客车2000辆, 检修铁路客车1500辆的生产能力。

To meet the market demand, CRRC Tangshan has set up its production platform consisting of “two lines and four systems”. The “two lines” refer to the two production lines for aluminum alloy carbody and steel (carbon steel and stainless steel) carbody. The “four systems” refer to the product systems including high-speed EMU, medium-and low-speed conventional railway passenger car, urban railcar, and special-use car. CRRC Tangshan has the capacity of manufacturing 12 EMUs and overhauling 8 EMUs monthly, and manufacturing 600 urban railcars and 2000 conventional railway passenger cars, as well as overhauling 1500 conventional railway passenger cars annually.

—— 铝合金车体生产线

Aluminum Alloy Carbody Production Line

铝合金车体生产线工艺布局科学合理, 形成了设备通用化、工装柔性化、模具专业化的制造技术平台。2012年, 中车唐山公司制造的高速动车组铝合金车体大部件出口至欧洲发达国家。

The aluminum alloy carbody production line features scientific and reasonable layout. Its production platform is characterized by equipments for general use, jigs and fixtures more flexible, dies and molds more professional. In the year 2012, CRRC Tangshan exported subassemblies of aluminum alloy carbody of high-speed EMU to the developed European country.





涂装生产线 Painting Line

涂装生产线按照UIC标准进行工艺布局,形成洁净区与非洁净区分区独立作业模式,采用中央集尘系统和具有调温除湿功能的喷烘一体漆房,实现了绿色制造的要求。

The painting line is laid out in conformity with UIC standard, and is divided into clean zone and non-clean zone for the separated painting operation. The painting workshop integrates the functions of centralized dust-collecting, temperature adjusting and dehumidifying, painting and drying. So, the painting line has reached the green manufacturing standard.

总装配生产线 General Assembly Line

总装配生产线拥有120个生产台位。该生产线将物流与生产按照精益制造流程配置,可实现定制化生产。气垫运输车进行车辆流转的港湾式固定台位装配模式,实现了铁路客车装配方法创新,提高了装配效率;装配后的先进检测技术和重量平衡技术,确保了列车安全平稳运行。

The general assembly line has 120 production stands. The line is laid out with logistics compatible with production according to the lean production flow so as to achieve customized production. The air cushion carrier for vehicle transfer enables vehicle being assembled at the designated stand, which is an innovation for assembling railway passenger cars and improvement of assembling efficiency. The advanced technologies for fault detecting and weight balancing for the assembled cars can guarantee the running safety and stability of the train.





—— 调试生产线 Commissioning Line

调试生产线可满足多种电压制式、多种轨距的高速动车组、内燃动车组、城轨车、磁浮列车等轨道车辆的调试需求，具有良好的兼容性。该生产线通过采用基于TCN网络技术的调试方法，并具备仿真中央控制单元的控制功能及网络通讯功能，保障了车辆运行的稳定性和可靠性。

The commissioning line can meet the commissioning requirements of high-speed EMU, DMU, urban railcar, and maglev train, etc. with various voltages and track gauges. So the commissioning line has excellent compatibility. Relying on the TCN technique, simulated CCU and network communication, the commissioning line can guarantee the running stability and reliability of the train.

—— 不锈钢车体生产线 Stainless Steel Carbody Production Line

不锈钢车体生产线选用具有国际先进水平的车体大型点焊设备，采用单面单点焊接方式，整体实现了车体焊接的自动化，其中车体底架点焊制造工艺处于世界领先水平。

The stainless steel carbody production line is equipped with international advanced large-sized spot welding machines for carbody welding, and employs single-side single-point welding technique, and has achieved automation for carbody welding. The underframe spot welding technology has reached worldwide first level.





—— 碳钢车体生产线 Carbon Steel Carbody Production Line

碳钢车体生产线装备精良, 技术先进, 形成了模块化、精益作业模式, 满足多品种、大批量的国内外市场需求。

The carbon steel carbody production line is equipped with sophisticated equipments and state-of-the-art manufacturing technology, and has achieved modular and lean production. Upon these, the production line can meet the domestic and overseas markets demand of various kinds and large amount of carbon steel cars.



先进的转向架制造技术 Advanced Bogie Manufacturing Technology

中车唐山公司具有成熟的轨道车辆转向架设计和制造技术, 转向架产品覆盖高速动车组、摆式动车组、准轨、宽轨和窄轨铁路客车、地铁、低地板轻轨车等领域, 制造工艺处于行业领先水平。

CRRC Tangshan owns the mature design and manufacturing technology of bogie of railcars. The bogies can be equipped to the high-speed EMU, tilting DMU, standard-gauge/broad-gauge/narrow-gauge railway passenger car, metro car, and low-floor LRV, etc. Its manufacturing technology is at the leading position in this field.





中国第一列国产时速350公里CRH3动车组
The First China-made CRH3 350km/h EMU

先进的转向架制造技术

Advanced Bogie Manufacturing Technology

中车唐山公司用尖端工艺装备确保转向架焊接质量。外形尺寸较大的焊接构架和外形尺寸较小的构架附件均实现了全自动化焊接,并通过设计合理的焊接顺序及反变形工艺,保证了转向架构架焊接制造精度。

由构架加工、轮轴加工、轴承组装和台架试验等工序组成的转向架组装生产线工艺装备在同行业处于领先水平。转向架落成时四角同步升降的控制精度在2mm范围内,降低了组装误差,提高了整体组装质量。

CRRC Tangshan employs the top-end technical equipments to ensure the welding quality of bogie. The welding of large-sized bogie frame and small-sized frame accessories has realized complete automatization. Upon the reasonable welding procedures and anti-deformation technology, the welding precision of bogie frame can be well guaranteed.

CRRC Tangshan equipments of bogie assembly line for frame machining, wheel & axle machining, bearing assembly, and bogie testing on the bench are at the leading position of its kind. When the bogie is completed, the height of four corners synchronous up and down can be controlled within 2mm, so, the assembly error can be minimized, and accordingly, the general assembly quality can be improved.

中国首列高速动车组转向架



Bogie of CRH380BL high-speed EMU

出口阿根廷的宽轨转向架



Broad gauge bogie for Argentina

出口巴基斯坦的宽轨转向架



Broad gauge bogie for Pakistan

CW-200K转向架



CW-200K bogie

地铁轻轨转向架



Bogie of urban railcar

出口越南的米轨转向架



Meter-gauge bogie for Vietnam

CRH3型时速350公里动车组

CRH3 350km/h EMU

2008年,拥有自主知识产权的国产首列CRH3型350km/h动车组在中车唐山公司下线,并于当年在京津城际铁路创造出394.3km/h的“中国第一速”。在武广客运专线创造了两列车重联工况下394.2km/h的世界最高速度。CRH3型动车组每列为“4动4拖”8辆编组,定员557人,牵引功率8800kW。该型动车组已在京津城际、京广和广深等高铁线路批量投入运营。

In 2008, the first China-made CRH3 350km/h EMU with proprietary intellectual property rights (IPR) rolled off its production line in CRRC Tangshan, and then achieved the first speed of China – 394.3 km/h on Beijing-Tianjin intercity railways. And more, two coupled CRH3 EMUs created the worldwide highest speed of two coupled trains – 394.2 km/h on the dedicated high-speed railway passenger lines of Wuhan-Guangzhou. The CRH3 EMU is configured with 4 motor cars and 4 trailer cars, and seating capacity 557 persons, traction power 8800kW. The CRH3 EMUs have been put into business operation in batches on the high-speed railway lines of Beijing-Tianjin, Beijing-Guangzhou, and Guangzhou-Shenzhen.





引领轨道装备发展的CRH380BL动车组
CRH380BL EMU – Leading Railway Equipment Development



“高铁医生”高速综合检测列车
High-speed Comprehensive Inspection EMU – Doctor of High-speed Railways



新一代CRH380BL动车组和CRH380B动车组 New Generation of CRH380BL EMU and CRH380B EMU

2010年，中车唐山公司自主创新研制出的新一代CRH380BL动车组，代表了当今世界轨道装备制造业的先进水平。2011年，该动车组在试验运行中，创造了487.3km/h新的“中华第一速”。该动车组由16辆编组，由4个牵引动力单元组成“8动8拖”结构，持续运营时速350公里，最高运营时速380公里。

2013年，中车唐山公司在保持CRH380BL动车组性能和运营时速的基础上，研制出CRH380B动车组，该动车组由2个牵引动力单元组成“4动4拖”结构，增加了受电弓监控设备和客室烟雾探测功能，同时还增加了灰水回收系统和蹲便卫生间，提高了列车的安全可靠性和环保性能。

In 2010, CRRC Tangshan, upon independent innovation, developed and manufactured the new generation of CRH380BL EMU. The CRH380BL EMU represents the leading technology of railway equipments manufacturing industry of contemporary world. In 2011, the CRH380BL EMU created another first speed of China – 487.3 km/h during its trial running. The CRH380BL EMU is configured with 8 motor cars and 8 trailer cars in four traction power units. Its continuous running speed is 350km/h, and maximum running speed is 380km/h.

In 2013, CRRC Tangshan, without changing the performance and operation speed of the CRH380BL EMU, developed and manufactured the CRH380B EMU. The CRH380B EMU is configured with 4 motor cars and 4 trailer cars in two traction power units. Based on the CRH380BL EMU, the CRH380B EMU has been added with pantograph monitoring equipment and passenger compartment smoke detecting system, ash-water recovery system, and oriental type toilet. So, the CRH380B EMU is safer, more reliable and more environmental friendly.



高速综合检测列车 High-speed Comprehensive Inspection EMU

2011年5月，中车唐山公司自主创新研制的高速综合检测列车开上京沪高铁，最高检测时速为400公里。该列车集接触网检测、通信及信号检测、轨道与动力学检测为一体，实现了我国铁路装备重大技术创新，被誉为“中国高铁保护神”。

In May 2011, the high-speed comprehensive inspection EMU developed and manufactured by CRRC Tangshan upon independent innovation was put into service on the dedicated high-speed railway lines of Beijing-Shanghai. Its maximum inspection speed is 400km/h. The EMU can inspect the catenary, communication and signal equipments, track and dynamic performance. The inspection EMU is a vital technical innovation of China's railway equipments, and is praised as “CRH's guardian” (CRH – China Railway High-speed)





CJ-1和CJ-2型城际动车组

CJ-1 & CJ-2 Intercity EMU

中车唐山公司与相关企业共同研制的CJ-1型城际动车组和中车唐山公司自主开发研制的CJ-2城际动车组持续运营速度均为250km/h, CJ-2型城际动车组采用牵引变流器与辅助变流器集成于一体的动力单元和轻量化薄壁铝合金车体, 车头按仿生学原理设计为鲨鱼造型, 降低了运行阻力和噪音。

CRRC Tangshan, together with relevant enterprises, created the CJ-1 Intercity EMU. And CRRC Tangshan, upon independent innovation, gave birth to the CJ-2 Intercity EMU. The continuous running speed of the two kinds of intercity EMU is 250 km/h. The traction converter and auxiliary converter of the CJ-2 Intercity EMU are integrated in one power unit. The carbody is fabricated with light-weight aluminum alloy and in thin wall tubular structure. The profile of driver's cab is in shark shape in accordance with bionic principle. So, the running resistance and noise level of the CJ-2 Intercity EMU can be minimized.



时速160公里城际动车组

160 km/h Intercity EMU

中车唐山公司自主研制的160km/h城际动车组, 具有大载客量、快启快停、快速乘降, 乘坐空间大、安全舒适的特点。该动车组采用4辆编组, 可灵活扩编至6辆或8辆, 具备升级到200km/h 的能力并具有重联功能。

The 160km/h Intercity EMU developed and manufactured by CRRC Tangshan upon independent innovation has the advantages of larger passenger capacity, quicker startup and stop, more convenient for passengers getting on/off, wider seats, safer and more comfortable. The EMU is configured with 4 cars. And it can be conveniently added to 6 cars or 8 cars. And two 4-car EMUs can be coupled together. The 160km/h Intercity EMU has the potential to increase its operation speed to 200km/h.

时速140公里市域动车组

140 km/h Urban EMU

中车唐山公司自主研制的140km/h市域动车组, 具备持续运行速度140km/h的能力, 适用于AC25kV和DC1500V双制式供电线路, 可满足大城市周边中短途通勤需求, 并可直接与城市A型地铁线路联通, 无缝混跑运营。

CRRC Tangshan, upon independent innovation, created the 140km/h Urban EMU. The power of the Urban EMU can be supplied by AC25kV circuit and DC1500V circuit. The Urban EMU can meet the requirement of medium-and short-distance commuting around the metropolitan cities, and can directly connect with type A metro lines to achieve seamless integral traffic system.





A型地铁列车 (石家庄地铁样车)
Type A Metro Cars (Prototype Car for Shijiazhuang Metro Project)



B型地铁列车 (天津地铁1号线)
Type B Metro Cars (Tianjin Subway Line 1)

B型地铁列车 (福州地铁1号线)
Type B Metro Cars (Fuzhou Subway Line 1)

A型地铁列车

Type A Metro Cars

中车唐山公司批量制造的A型地铁列车采用高强度、轻量化、模块化设计的大断面铝合金车体结构，整车重量轻，宽度大，载容量多，特别适合大运量城市交通线路，是代表地铁车辆先进技术的高端产品。

The type A metro cars manufactured by CRRC Tangshan in batches are characterized by high strength, light weight, modular structure, large cross-section aluminum alloy carbody. Due to lighter tare weight and wider carbody, the type A metro cars have more passenger capacity, and are more suitable for mass transit of metropolitan cities. The type A metro cars embody the high-tech products of its kind.

B型地铁列车

Type B Metro Cars

中车唐山公司批量制造的B型地铁列车集成了世界上最先进、最成熟的动力分散电传动牵引系统和再生电、空制动系统，可根据城市运营需要，组成4辆、6辆或8辆的编组模式。

The type B metro cars manufactured by CRRC Tangshan in batches have integrated the worldwide advanced and proven power-separated electric transmission traction system, and regenerative electro-pneumatic (EP) brake system. The metro train can be configured with 4 cars, 6 cars or 8 cars as per the transport requirement.



B型地铁列车 (福州地铁样车)
Type B Metro Cars (Prototype Car for Fuzhou Metro Project)

B型地铁列车 (北京地铁13号线)
Type B Metro Cars (Beijing Subway Line 13)



70%和100%低地板现代有轨电车

Modern 70% Low-floor Tram & Modern 100% Low-floor Tram

中车唐山公司近年研制的70%低地板现代有轨电车和100%低地板现代有轨电车成为现代城市新型交通工具的最佳选择。该车无需设置站台即可在规定线路投入运用,具有乘坐方便、噪音低、无污染的品质。

The modern 70% low-floor tram and 100% low-floor tram created by CRRC Tangshan in recent years have become the most optimal choice for modern urban rail transit equipments. The low-floor tram can be promptly put into business operation on the designated light-rail lines without platform. And the low-floor tram has the advantages of convenient for passengers getting on /off, low noise, and environment friendly.

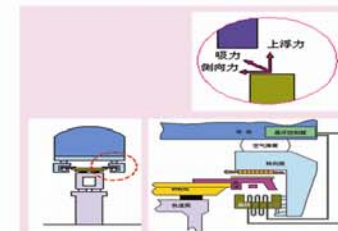


中低速磁浮列车

Medium-and Low-speed Maglev Train

中车唐山公司拥有中低速磁浮列车知识产权,该车具有转弯半径小,爬坡能力和线路适应性强、客运量大的特点,列车悬浮行驶,噪声低,振动小,为旅客提供了平稳舒适的乘坐环境,适用于城郊和城际间运营。

CRRC Tangshan owns the intellectual property rights (IPR) of the medium-and low-speed maglev train. The maglev train has the advantages of smaller radius of curve negotiated, higher gradeability, more adaptable to track conditions, larger passenger capacity. And thanks to being elevated, the maglev train features lower noise, smaller vibration, and accordingly, it will provide passengers with more stable and comfortable travelling environment. The maglev train is suitable for suburb and intercity traffic.





25G型铁路客车系列
Type 25G Railway Passenger Car Series



25T型铁路客车系列
Type 25T Railway Passenger Car Series

安全快捷的25型系列客车

Reliable and Speedy Type 25 Series Railway Passenger Cars

自1990年以来,中车唐山公司在国内率先创新开发出25型铁路客车系列产品,累计为中国铁路现代化建设提供了近万辆安全快速的新型客车。

Since 1990, CRRC Tangshan, as the first one in the railway industry of China, has created the type 25 series railway passenger cars. So far, CRRC Tangshan has successively supplied about 10000 reliable and speedy type 25 series railway passenger cars for China's railway modernization drive.

广泛的国际合作

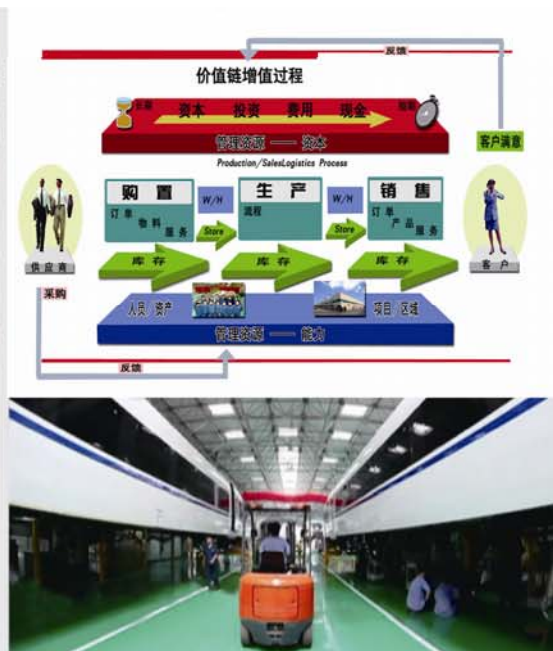
Extensive International Cooperation

中车唐山公司作为“国际科技合作基地”,广泛与国外科研机构、世界知名企业建立产业联盟,促进了中车唐山公司的高新技术研究和科技成果转化,增强了企业的技术创新能力。中车唐山公司推行UIC标准和欧洲铁路标准,产品达到国际标准。中车唐山公司制造的产品先后出口到东南亚、中亚、西亚、欧洲、非洲和南美洲等近20个国家和地区。

As an International Science & Technology Cooperation Base, CRRC Tangshan has established extensive industrial alliances with overseas scientific research institutes and world-renowned enterprises, and enhanced the application of its high-tech research results, and accordingly, improved its technical innovation capability. CRRC Tangshan tries to employ UIC standards and European railway standards, and its products have reached international standards. CRRC Tangshan's products have been exported to more than twenty countries and regions in the Southeast Asia, Middle Asia, West Asia, Europe, Africa and South America, etc.

唐山公司承接的“西门子KREFELD项目”出口铝合金车体大部件发运
Shipment of subassemblies of aluminum alloy carbody for Siemens KREFELD Project





高素质的“中国第一代高铁工人”团队

High-quality “China’s First Generation of CRH Workers” Team

中车唐山公司与清华大学、北京交大、西南交大、中科院、铁科院等著名高校、科研院所合作，全面突破了高速动车组九大关键技术和十项配套技术，培养了一大批科技人才。

中车唐山公司坚持生产操作工必须持证上岗的理念，在建立了独立的铝焊接培训基地和车电工培训中心的基础上，建立起一套完整的生产、管理培训体系。目前，公司拥有国内仅有的2名国际级焊接教师，并已培养出8名全国技术能手，有近千名员工分别获取了国际焊工、国际焊接质检师证书，公司高技能人才占技术工人总数的55%，高素质的员工队伍为制造质量上乘的产品打下了坚实基础。

With the cooperation of some prestigious universities and research institutes such as Tsinghua University, Beijing Jiaotong University, Southwest Jiaotong University, Chinese Academy of Sciences, and China Academy of Railway Sciences, CRRC Tangshan has realized breakthrough in nine key technologies and ten supporting technologies of high-speed EMU, and fostered lots of scientific and technological talents.

CRRC Tangshan insists on the principle that production operators must acquire qualification certificate in advance. CRRC Tangshan has set up independent aluminum welding training base and vehicle electrician training center, and accordingly, established a complete set of production and management training system. So far, CRRC Tangshan cherishes the China’s only two international-level welding teachers, and has fostered eight national-level skilled workers. Almost one thousand employees have been awarded with certificates of international welder or international welding quality inspector. CRRC Tangshan’s high-class technicians accounts for 55% of its technical workers. It is the high-quality employees that laid a solid foundation for manufacturing high-quality products.



完善的质量保证体系

Consummate Quality Assurance System

中车唐山公司的管理水平不断提升，先后通过GB/T19001 (ISO9001) 质量管理体系、IRIS质量管理体系、ISO14000环境体系、OHSMS18000职业安全健康体系和EN15085焊接体系认证。公司推行精益管理，并在国内同行业首次成功运用ERP—SAP数字化信息管理系统，实现了企业管理的程序化、数据化和信息共享，形成科学、高效的管理体系，为制造高品质的轨道交通装备搭建起了一流的管理平台。

CRRC Tangshan’s management level is constantly improving, and has successively passed the verification of GB/T 19001 (ISO 9001) Quality Management System, IRIS Quality Management System, ISO 14000 Environment Management System, OHSMS 18000 Occupational Health and Safety Management System, and EN 15085 Welding System. TRC persists in lean management, and as the first one in the railway industry in China, successfully applied ERP-SAP digital information management system, and accordingly, realized program, data, and information sharing in enterprise management. It is the scientific and effective management system that has achieved first-class management platform for CRRC Tangshan manufacturing high-quality railway transport equipments.

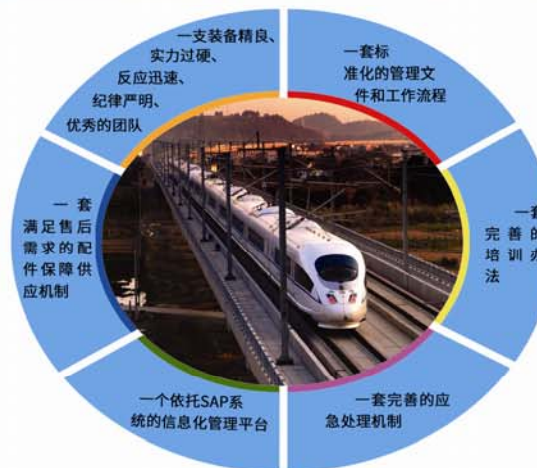




高效的营销服务网络

High Efficient After-sales Service Network

中车唐山公司在北京、上海、广州、杭州、长沙等用户所在地设立服务站，建立了完善的销售服务网络体系，技术全能型的售后服务“王牌之师”为用户提供运用维护产品的技术支持和培训咨询，坚持为用户提供全天候、全方位的“F1方程式”快速反应的服务，保证了轨道交通装备产品的安全可靠运行。



CRRC Tangshan has established after-sales service stations in its products operating sites such as Beijing, Shanghai, Guangzhou, Hangzhou, and Changsha, etc., and accordingly, weaved an effective after-sales service network. The competent after-sales service team which is honored as "Trump Troop" provides clients with technical support, training and advice of operation and maintenance of its products. The after-sales service team endeavors to provide all-weather and all-round "Formula F1" type prompt service for clients to guarantee the safety and reliability of its rail transit equipments.

- A set of standardized management documents and working flowcharts
- A set of consummate training methods
- A set of consummate emergency handling system
- A set of information management platform based on SAP system
- A set of spare parts supply mechanism for after-sales service
- A well-equipped, high-quality, rapid-response, and strictly-disciplined after-sales service team



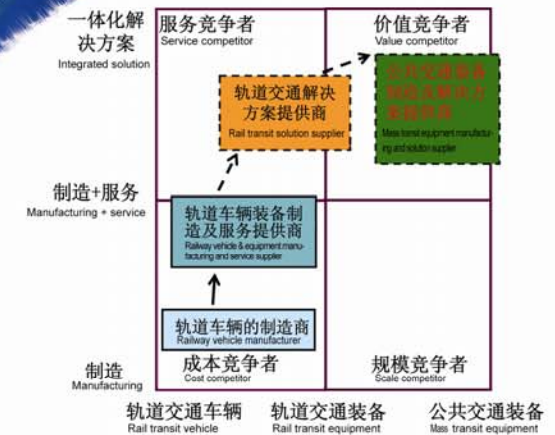
绿色智能人文一体化交通解决方案

“Green, Intelligent, Humanistic”

Integrated Transport Solution

中车唐山公司致力于解决中国城市交通问题，根据城市需求，利用现代信息技术，使公路、铁路、水路及航空科学合理地联系在一起，为城市提供多式联运、互联互通、无缝衔接的“绿色智能人文一体化”交通解决方案。

CRRC Tangshan has been endeavoring to give an integral solution for urban traffic of China. Relying on the state-of-the-art communication technology, and based on the demand of urban traffic, CRRC Tangshan commits to provide a “Green, Intelligent, Humanistic” integral transport solution by scientifically and reasonably connecting highway, railway, seaway and airway, and accordingly, to weave a multiple through traffic network for metropolitan cities.





天津工业园:立足天津 面向全国 走向世界

Tianjin Industrial Park—Based on Tianjin, Facing to the Whole Nation, Going to the World

中车唐山公司投资建设的天津工业园位于天津市东丽区, 园区占地约1500亩, 总投资30多亿元, 已建成以不锈钢研发为主要技术平台, 集地铁、城轨车辆、城际车辆制造和维修及高档出口车辆为主业的技术研发和生产制造基地, 该工业园的总体规模将达到年修造轨道车辆1000辆的能力。

The Tianjin Industrial Park invested by CRRC Tangshan is located in Dongli District of Municipality Tianjin, with an area of 100 hectares and total investment over RMB 3 billion Yuan. Taking the R&D of stainless steel as its main technological platform, the Tianjin Industrial Park has forged itself a modern base for research and development, manufacturing and overhauling, and export of metro cars, urban railcars, intercity railcars, and high-class railway passenger cars. Its annual capacity is manufacturing and overhauling 1000 railcars.



泉州工业园:立足海西 辐射周边 拓展海外

Quanzhou Industrial Park

—Based on the West of Taiwan Strait, Facing to the Surrounding Areas, Exploiting Overseas Markets

中车唐山公司投资建设的泉州工业园位于福建省泉州市台商投资区, 园区占地约1500亩, 主要经营轨道车辆的制造及维修业务, 该园区是海西地区建设规模最大、产品类别最多、技术水平最高、发展前景最广阔的轨道装备制造基地。目前, 已具备年产300辆地铁、城轨车辆的生产能力。

The Quanzhou Industrial Park invested by CRRC Tangshan is located in the Taiwanese Investment Zone, Quanzhou city, Fujian Province, with an area of 100 hectares. Its main business is manufacturing and overhauling of railcars. The Industrial Park is the largest railway equipments manufacturing and overhauling base in the west coast of Taiwan Strait, with multiple product categories, high-tech equipments, and a promising future. So far, its annual capacity is manufacturing and overhauling 300 metro cars or urban railcars.

