

CRYOGENIC ISO TANK BROCHURE **低温罐箱产品手册**

Latest Development:
LHE / LH2 /53ft T75 ISO tank



CRYOGENIC ISO TANK MANUFACTURING BASE **四大低温罐箱制造基地**

南通中集能源装备有限公司
Nantong CIMC Energy Equipment Co., Ltd.

张家港中集圣达因低温装备有限公司
Zhangjiagang CIMC Sanctum Cryogenic Equipment Co., Ltd.

荆门宏图特种飞行器制造有限公司
CIMC ENRIC · Jingmen Hongtu Special Aircraft Manufacturing Co., Ltd.

石家庄安瑞科气体机械有限公司
Shijiazhuang Enric Gas Equipment Co., Ltd.

Company Profile

公司概况



中集集团 CIMC

中国国际海运集装箱（集团）股份有限公司（简称：中集集团）（股票代码：000039.SZ），是世界领先的物流装备和能源装备供应商，总部位于中国深圳。公司致力于在如下主要业务领域：集装箱、道路运输车辆、能源化工及食品装备、海洋工程、物流服务、空港设备等，为全球客户提供高品质与可信赖的装备和服务。作为一家为全球市场服务的多元化跨国产业集团，中集在亚洲、北美、欧洲、澳洲等地区拥有300余家成员企业,5万多名员工及3家上市公司，客户和销售网络分布在全球100多个国家和地区。

China International Marine Containers (Group) Ltd. (CIMC), (000039.SZ) is a world leading supplier of logistics and energy equipment, headquartered in Shenzhen of China. CIMC is dedicated to supplying high-quality and reliable equipment and services, including containers, vehicles, energy, chemical and food equipment, offshore, logistics services, airport facilities, etc. As a diversified multinational operation group that shoulders the mission of serving the world market, CIMC has over 300 member enterprises, more than 50 thousand employees and 3 listed companies in Asia, North America, Europe and Australia, and an extensive sales network that covers more than 100 countries and regions.



中集安瑞科 CIMC ENRIC

中集“能源化工食品装备板块”隶属中集集团，该板块以香港主板上市、《财富》中国500强企业——中集安瑞科控股有限公司（股票代码：3899.HK）为领头企业，立足能源、化工、食品装备行业，为客户提供运输、储存、加工的关键装备、工程服务及系统解决方案。

CIMC ENRIC Holdings Limited (Stock code: 3899.HK) is one of the companies listed on the Main Board of the Hong Kong Stock Exchange in the energy, chemical and liquid food equipment industry segment. It is a subsidiary of CIMC Group. The company is engaged in the design, development, manufacturing, engineering and sales, as well as provision of technical maintenance services for, a wide range of transportation, storage and processing equipment used in the energy, chemical and liquid food industries.

中集安瑞科能源装备（苏州）有限公司
CIMC ENRIC Energy Equipment (Suzhou) Co., Ltd.

中集安瑞科能源装备（苏州）有限公司经营范围主要包括：安瑞科能源装备国际业务统一管控（产品及技术的进出口）、能源装备产品营销管理、核心技术研发及咨询等。目前，能源装备业务中心拥有近5500名员工。

The business scope of CIMC ENRIC Energy Equipment (Suzhou) Co., Ltd. mainly includes: the unified management and control (import and export of products and technologies), energy equipment product marketing management, core technology research and development and consultation, etc. At present, the energy equipment business center has nearly 5500 employees.

统一技术设计规范
Unified Technical Specification

统一质量控制标准
Unified Quality Control Standard

统一工艺制造标准
Unified Fabrication Process Standard

同一种标准化T75罐箱产品

The Same Standardized T75 ISO Tank

量产产能
Mass Production Capacity
10,000台/年 units/year



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荆门宏图特种飞行器制造有限公司
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石家庄安瑞科气体机械有限公司
Shijiazhuang Enric Gas Equipment Co., Ltd.

南通中集能源装备有限公司是中集安瑞科控股有限公司的下属专业生产能源装备的骨干企业。公司立足于能源装备业务，专业从事低温储运装备、高安全核电装备、船用脱硫装置、光伏产业链配套设备等系列产品的设计、制造、销售，不断为客户提供个性化、系统化的解决方案和全生命周期的售后服务保障，力争成为能源装备行业的世界级企业。

Nantong CIMC Energy Equipment Co., Ltd. is the wholly owned subsidiary of CIMC Enric Holdings Limited. As the large-scale professional and comprehensive manufacture base for energy equipment, CIMC Nantong dedicates herself to providing cryogenic transportation & storage equipment, nuclear power equipment, marine desulfurization equipment, and photovoltaic supply chain equipment to her customers. CIMC continues to provide customized, systematic solutions and full life cycle after-sales service and strives to become a world leading enterprise in energy equipment industry.

张家港中集圣达因低温装备有限公司专业研发制造低温贮运装备，并承接LNG加气站、LNG气化站、工程大罐、LNG船用装备等低温工程应用业务。公司已获多项国内外设计制造资质认定，累计获得自主专利126项，并通过ISO9001、ISO14001认证，荣获江苏省著名商标、江苏省高新技术企业等荣誉称号。

Zhangjiagang CIMC Sanctum Cryogenic Equipment Co., Ltd. specializes in the development and manufacture of cryogenic equipment of storage and transportation, also undertakes the business of cryogenic engineering application such as LNG refueling station, LNG vaporizing station, large-sized storage tank and LNG marine equipment. The company has been certified as a number of design and manufacturing qualifications at home and abroad, and has obtained 126 independent patents in total. It has passed ISO9001 and ISO14001 certifications and won the honorary titles of Famous Trademark of Jiangsu Province and High-tech Enterprise of Jiangsu Province.

荆门宏图特种飞行器制造有限公司成立于1971年，公司在危化品储运、城镇气化、车/船加气站等领域为客户提供个性化、全方位整体解决方案，始终站在引领行业发展的前列，产品远销中东、南美、东南亚、东北亚、非洲。

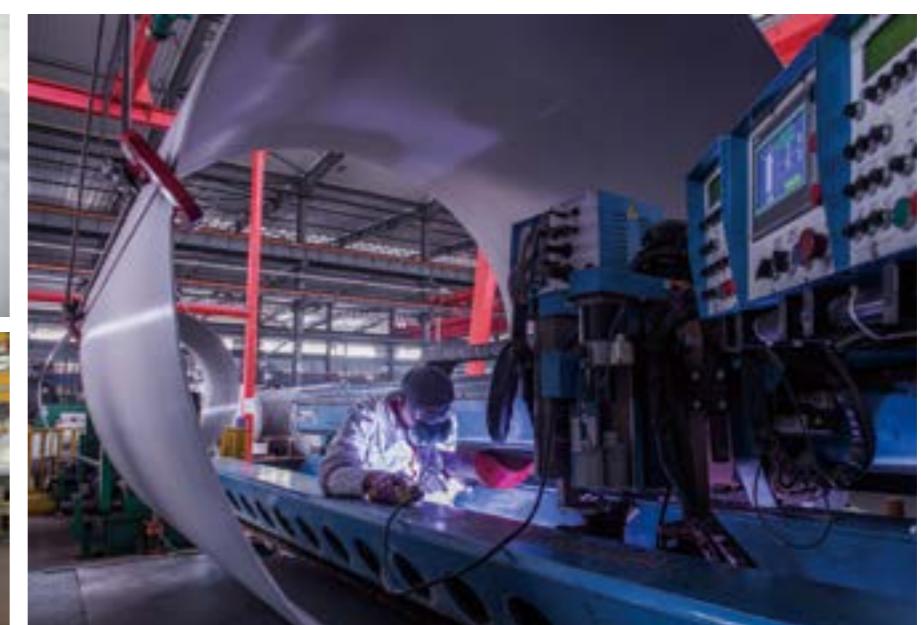
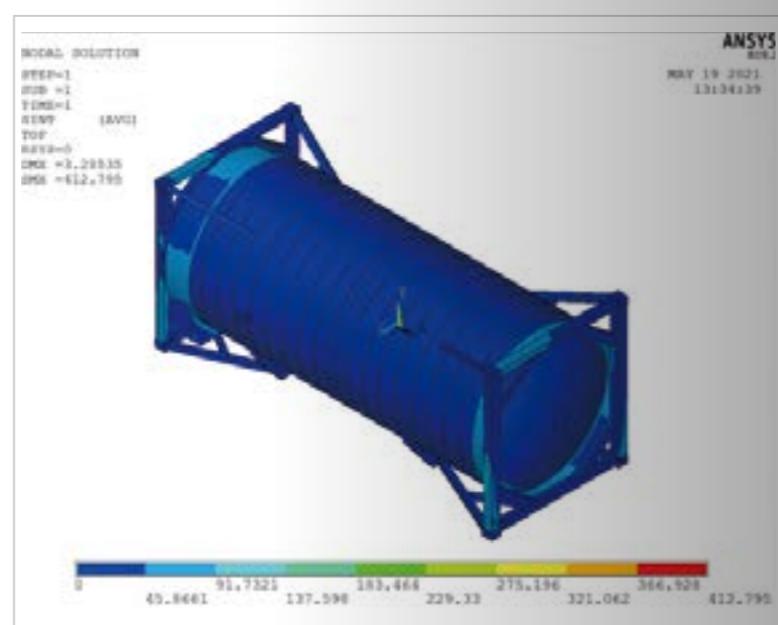
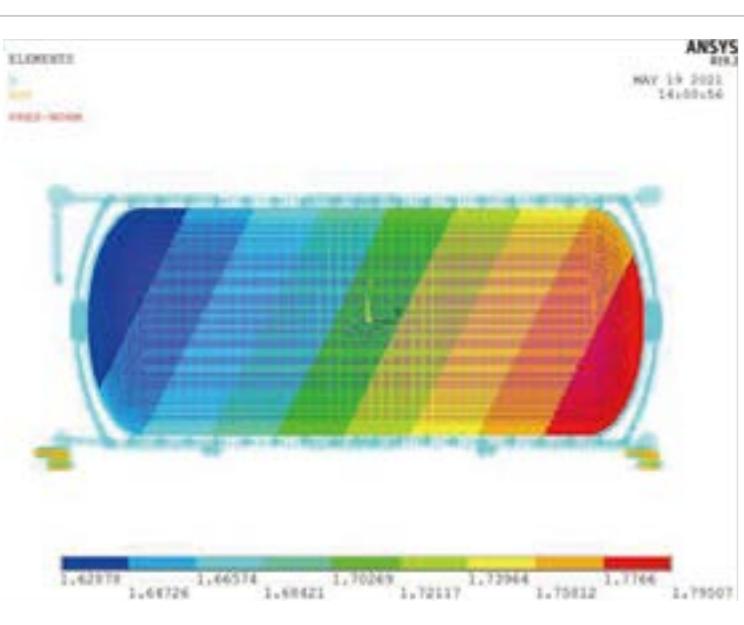
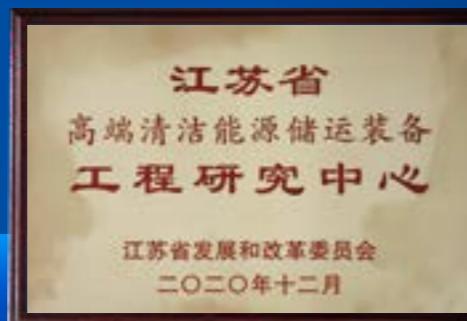
CIMC ENRIC · Jingmen Hongtu Special Aircraft Manufacturing Co., Ltd. has established in 1971. Honto has entered into the dangerous chemical goods storing and transportation equipment industry and is specialized in R&D, and to promote the individualized and comprehensive solutions to the fields of the storing and transportation of dangerous chemical goods, cities and towns gasification, automobile gas stations, etc. Honto sold the products all over China and exports and exported to Middle East, South America, Southeast Asia, Northeast East Asia and Africa.

石家庄安瑞科气体机械有限公司始建于1970年，主要生产制造压缩天然气（CNG）、液化天然气（LNG）、工业及特种气体、液化气体及化工物料系列储运设备。提供橇装式CNG加气站、LNG/LCNG加气站、氢气加气站等集成解决方案。提供CNG船舶运输、天然气工程项目等多项系统集成服务和交钥匙工程。

Shijiazhuang Enric Gas Equipment Co., Ltd. (briefly called Enric) was founded in 1970s, Enric mainly manufactures storage and transportation equipment for compressed natural gas (CNG), liquefied natural gas (LNG), industrial and specialty gas, liquefied gas and chemicals. Enric is capable to provide pioneer integrated solution of skid-mounted CNG filling station, LNG/LCNG filling station and hydrogen filling station, etc, and also the systematic integration services and turnkey projects such as CNG marine transportation, natural gas engineering project.

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Brand service

品牌服务



CIMC ENRIC

- 01 全时段服务, 7×24×365
Full time service, 7×24×365
- 02 200+专业服务人员, 300+专业服务网点, 1小时响应, 24小时到达现场
200 + professional service personnel, 300 + professional service outlets, 1 hour response, 24 hours arrival at the site
- 03 服务网点覆盖:中国,欧洲,北美,东南亚
Service network coverage: China, Europe, North America, Southeast Asia
- 04 5年真空维护, 十年真空保障
5 years of vacuum maintenance and 10 years of vacuum guarantee
- 05 全用户免费培训
Free training for all users
- 06 不定期巡检+预防性维修
Irregular patrol inspection + preventive maintenance
- 07 专用品备件
Special brand spare parts
- 08 提供应急罐箱保供
Provide emergency tank guarantee
- 09 可贴身定制的服务
Customized services
- 10 十年服务总包细则
Ten year service general contracting rules
- 11 全生命周期管家式服务
Full life cycle housekeeper service

Depot & Life-cycle Service

| 全生命周期/全球售后服务

CIMC ENRIC 中集安瑞科 05/06



Accreditations

质量保证及资质认证



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Latest Development 新产品 新发展



Latest Development 新产品 新发展



40英尺液氢罐箱

40ft Liquid Hydrogen Cryogenic Tank Container

液氢罐箱能够实现氢能源的长距离运输，与高压氢运输方案相比，具有更安全、更高效、运价更低等优点。液氢罐箱高效的绝热方式、主动和被动的管路系统设计，可实现液氢罐箱在长距离运输无氢气排放。我司牵头起草全国首个《移动液氢容器专项技术要求》标准，使移动式液氢容器的设计和制造有标可依，为保障液氢储存和运输的安全性和可靠性、进一步驱动液氢产业发展提供了有力的支持和依据。

Compared to the traditional high pressure hydrogen transportation method, 40ft Lh₂ tank container, can easily make the long-distance transportation more safely, with higher efficiency and lower freight rate. Efficient insulation, active and passive piping system design, can also help the long-distance transport of liquid hydrogen tank without hydrogen emission.

Nantong CIMC Energy, as the main leader, drafted the Chinese regulation "Special technical requirements for transportable vacuum-insulated liquid hydrogen pressure vessels". With this regulation, we have the standards to design and manufacture portable liquid hydrogen containers, and we can ensure the safety and reliability of liquid hydrogen storage and transportation. This regulation is also a strong support and basis for the development of liquid hydrogen industry.

型号 Type	设计标准 Design Code	工作压力 MAWP(MPa)	几何容积 Capacity(m ³)	自重 Tare Weight(kg)	装载质量 Load weight(kg)	维持时间 Holding Time
CASIS-40-1.2	ASME	1.2	40.4	16160	2550	≥9days
CASIS-40-1.2	ASME	1.2	40	18850	4500(LHe) 2550(LH ₂)	≥43 days ≥70 days

注：可根据客户要求设计制造不同压力（0.4-1.2MPa）不同规格（20ft、30ft、40ft、45ft、swapbody etc.）的产品。
Note: We can design and manufacture products with different pressures (0.4-1.2MPa) and specifications (20ft, 30ft, 40ft, 45ft, swapbody, etc.) according to customer requirements.

40英尺液氦罐箱

40ft Liquid Helium Cryogenic Tank Container

40 英尺液氦罐箱主要用于液氦的储存运输和贸易，能够在充装、陆运、海运、存储、分销之间无缝衔接，实现液氦的无损运输，是世界上使用最广泛、最为主要的液氦储运载体。中集安瑞科自主研发的新一代 40 英尺液氦罐箱，对标美国和德国领先的技术指标，产品性能达到国际领先水平，具备优异的可靠性和超长的使用寿命。

40ft Lhe ISO tank container, independently developed by CIMC, is used for the storage, transportation and trade of liquid helium and is the most widely used and most important mode of Lhe transportation in the world. With the excellent reliability, long service life and performance, the container is also the most economical way to transport the Lhe by road or by sea.

Recently, CIMC Enric succeeds in the design and manufacturing of the first generation of LHe tank container, our second generation reaches the international leading level.

型号 Type	设计标准 Design Code	工作压力 MAWP(MPa)	几何容积 Capacity(m ³)	自重 Tare Weight(kg)	装载质量 Load weight(kg)	维持时间 Holding Time
CASIS-40-1.2	ASME	1.2	40.5	18850	4550	≥45 days

注：可根据客户要求设计制造不同压力（0.6-1.2MPa）不同规格（20ft、40ft）的产品。
Note: We can design and manufacture products with different pressures (0.6-1.2MPa) and specifications (20ft, 40ft) according to customer requirements.



AJH Energy Online Intelligence Collector

能源在线 智汇管家

安捷汇物联网信息技术（苏州）有限公司是中集安瑞科旗下科技创新型企业，能源化工装备一体化物联网解决方案供应商，提供设备远程监控、远程诊断、故障报警、设备维修保养、零配件更换，车罐站运营管理外包等服务，为能源化工企业运营管理提供高效、智能、安全的产品服务。



AJH: ANJIEHUI (AJH) IOT Information Technology (Suzhou) Co., Ltd.

AJH is a technological innovation enterprise under CIMC Group. It is an "Internet of Things" solution provider of integrated energy and chemical equipment. It provides remote monitoring, remote diagnosis, fault alarm, equipment maintenance, spare parts replacement, and operation management outsourcing service for energy and chemical enterprises. It provides efficient and intelligent services for the operation and management of energy and chemical enterprises, safe product service, and etc.

> 智能远传终端（罐箱型）

Intelligent Telemetry Terminal (ISO Tank Container type)

安捷汇罐箱智能管理系统，采用物联网技术将安捷汇智能设备安装在罐箱上，实时采集罐箱的液位、压力、温度、GPS位置等信息发送至云服务器。区别于贮罐和槽车智能远传终端，罐箱智能远传终端通过北斗和海事卫星功能可以进行全球信号接收，在国内外、海上皆可进行信号传输，做到全程资产运行管理。

The intelligent management system of AJH ISO Tank Container adopts the "Internet of things" technology to install AJH intelligent equipment on the tank, real-time collection of tank level, pressure, temperature, GPS location and other information which were sent to the cloud server. Unlike the intelligent remote transmission terminal of tank or tanker, ISO Tank Container Type can receive global signal through Beidou or marine satellite function, signal transmission can be carried out at home, abroad, and at sea, so as to achieve the whole route of asset operation management.



产品主要技术参数 Main Technical Parameters of Products	
供电power supply	3.6V锂亚电池Lithium battery
差压传感器精度 Accuracy of Differential Pressure Sensor	± 0.5%FS;
差压传感器测量范围 Measurement Range of Differential Pressure Sensor	0-50Kpa
压力传感器精度 Pressure Sensor Accuracy	± 0.5%FS
压力传感器测量范围 Measurement Range of Pressure Sensor	0-4Mpa
温度传感器精度 Precision of temperature sensor	± 1°C
温度传感器测量范围 Measurement range of temperature sensor	-200°C ~ +80°C
环境温度ambient temperature	- 40°C ~ +60°C
储藏温度Storage temperature	- 40°C ~ +70°C
输出信号output signal	2G/3G/4G/5G/北斗Beidou/海卫信号/Marine Satellite Signal
具有GPS/北斗、基站定位功能 With GPS/Beidou and Base Station Positioning Function	

> 罐箱智能远传终端优势

Advantages of Intelligent Telemetry Terminal for ISO Tank Container

◆通过对温度监控，可实时准确监测罐箱内LNG的状态
temperature monitoring enables real-time and accurate status monitoring of LNG inside ISO Tank Container.

◆可设置不同维度的报警，包括液位高低报警、压力高低报警、温度高低报警
Alarm can be set in different dimensions including liquid level(high and low), pressure(high and low), temperature(high and low), etc.

◆可实时监测罐箱运行路线，设置电子围栏做到及时提醒。
It can monitor the running route of tank in real time and set up electronic fence to remind in time.

◆灵活运营物流计划，采用高德货车版地图，形成高效物流管理体系
Flexible operation of logistics plan, the use of Golden Freight Car Map, the formation of an efficient logistics management system

◆安全阀、液位计、压力表等安全附件维护并设置校验提醒，提高安全系数。
Safety valves, level gauges, pressure gauges and other safety accessories are maintained and checked to improve safety factor.

◆南气北运、江海联运，在海上在陆地上实时通讯，保障罐箱运行安全。
ISO tank container could receive global signal through Beidou or marine satellite, signal transmission can be carried out at home, abroad, and at sea, so as to achieve the whole route of asset management. AJH telemetry were successfully used in LNG tank containers transportation from South Sea to Bo Sea and from Yellow Sea to Yangtze River.

> 设备现场应用展示

On-site application demonstration of equipment



Our Clients | 我们的客户及分布



制/储/运/加/用 天然气全过程解决方案

Production/Distribution/
Application Natural Gas-focused
Onshore + Offshore Clean Energy
Business Layout



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