



KARBONSAN[®]
CRYOGENICS

Your

RELIABLE PARTNER for CRYOGENIC SOLUTIONS

In Design, Manufacture and Delivery
of high quality stationary and mobile
tanks and equipment on time,
with commitment to safety
and competitive terms.



A world map where the landmasses are formed by a dense collection of small, glowing particles. The particles are primarily red and orange, with some yellow and white highlights, creating a vibrant, starry effect against a dark background. The map is centered on the Atlantic Ocean.

**We are currently
exporting to
more than 100
countries...**





ABOUT KARBONSAN

Karbonsan is a leading supplier of cryogenic stationary and mobile tanks and related equipment.

Karbonsan designs, engineers, procures, manufactures, repairs, tests and services cryogenic LNG, LCO₂, LIN, LOX, LAR vertical and horizontal storage tanks, semi-trailers, rigid tankers, ISO containers, evaporators, heaters and vacuum jacketed piping to European PED, TPED, ASME and EN standards. Karbonsan holds;

ASME U, S, NB, R, CE stamps

EN ISO 9001:2015, EN ISO 14001:2015, EN ISO 45001:2018, ISO 10002:2018

PED 2014/68/EU, AD 2000-Merkblatt HP0,

EN 13445, EN ISO 3834-2, EN 14398-2, EN 12542,

LR, ADR, RID, IMO, IMDG, SCS, CRS, UL, TRANSPORT CANADA,

NSAI, EAC, TSE BUREAU VERITAS BV MODE II FACTORY APPROVAL for

MARINE and OFF SHORE certificates.

As of mid 2025 Karbonsan delivered more than 3000 nos of cryogenic tanks, tankers and equipment to more than 100 countries.

Incorporated in 1988, Karbonsan is headquartered in Istanbul with its fabrication facilities in Bursa, Türkiye.

Conveniently located in Orhangazi, the fabrication facilities consist of 70.000 m² land and 19.000 m² shop areas, 65 kms away from Istanbul and within 18 kms of 4 international deep sea ports, 50 kms of Istanbul Sabiha Gökçen Airport.

OUR

MISSION

To design, manufacture and deliver worldwide, high quality cryogenic stationary and mobile tanks, and equipment safely, on time and at competitive terms.

VISION

To be the best-in-class and preferred supplier of demanding customers for cryogenic products and solutions.

VALUES

Safety, competency and development of our employees

Satisfaction and confidence of our customers

Quality and reliability of our products

Ethical, environmental and social responsibility






**Near Gemlik
Int. Ports**





Karbonsan's technology-driven and lean manufacturing facility is strategically positioned to effectively serve clients across all continents.

Cryogenic Storage Tanks Liquefied Air Gases, LIN, LOX, LAR, CO₂ and LNG

Karbonsan offers you its expertise inside and outside the tank – and beyond the tank itself – to provide an integrated and comprehensive service that meets all your requirements and adds value to your projects. Thanks to strong relations with the gas industry, Karbonsan manufactures user-friendly and long-lasting tanks for the gas industry. Many features of pressure vessels have been improved by means of this close cooperation with end-users.





Upto 1.000m³

The horizontal or vertical cryogenic tanks are vacuum insulated either with Perlite or MLI Super Insulation for long term storage of cryogenic liquefied gases under pressure and for their withdrawal in gaseous or liquid state. The capacities of the cryogenic tanks we manufacture range between 1m³ and 1.000m³.

LIN, LOX, LAR, LCO₂ and LNG

We are striving hard to supply the best thermal insulation system in our cryogenic equipment. We know that the best insulation system protects your valuable gases from harsh ambient conditions. Then, you get optimum thermal performance, lower pressure rise and minimised losses, yielding better gas utilization, savings and environmental protection.

User-friendly Cryogenic Tanks

Reliability, safety, efficiency, ergonomoy and robustness have paramount importance right for us. With the excellence in design and manufacturing, the tanks manufactured by Karbonsan have proven their performance in insulation over the years and provide competitive advantages for its customers around the world.

Thermosyphon Tanks

The thermosyphon tanks are mostly preferred for cylinder filling purposes. Karbonsan designs and manufactures the thermosyphon tanks considering the user needs and the difficulties encountered on site. Thus, the tanks provide more reliable and efficient cylinder filling ability and reduce the losses and pump maintenance costs.

PUR Insulated Storage Tanks, Liquid Carbon Dioxide and Nitrous Oxide

LCO₂ Storage Tank production is one of our core businesses. Karbonsan has continuously produced the most innovative, reliable and efficient LCO₂ tanks in the market, including horizontal LCO₂ tanks and vertical LCO₂ tanks in various sizes to meet any facility's LCO₂ requirements. as well as providing storage in carbon capture projects and serving decarbonisation





LCO₂ Stationary Tanks

LCO₂ tanks are generally single walled, PUR insulated and aluminum plated. The operating pressure can be selected as low, medium or high depending on the application or preference. PUR Insulated Tanks can be manufactured upto 1.000 m³ with vertical or horizontal type options depending on the application or space availability at the site.



Liquid Nitrous Oxide

Increasing number of industrial gas companies tend to buy nitrous oxide instead of producing as they encounter difficulties in ammonium nitrate supply. Karbonsan offers horizontal and vertical stationary liquid nitrous oxide tanks as well as liquid carbon dioxide tanks in various sizes and options.



Transportable LCO₂ Tanks

The skid mounted liquid carbon dioxide tanks can be used for stationary purposes, as well. They can be equipped with safety valves, heaters, load-cells, weighing systems and cooling units. Optionally, they can be equipped with additional outdoor heater and ambient vaporizer units in extraordinary cases.



Engineered LCO₂ Tanks

Application-focused and tailor-made engineered systems solutions are available for liquid carbon dioxide as well as air gases. We design polyurethane insulated liquid carbon dioxide tanks, using the standards AD 2000 Merkblatt, ASME and many other applicable local pressure vessel standards.

Semi-Trailers, Rigid Tankers, Skid Mounted Tanks Cryogenic Liquefied Gases, LIN, LOX, LAR, LCO₂, LNG and LPG

Considering their densities, cryogenic semi-trailers are designed for the maximized transportation of liquefied gases. As the payload of semi-trailers has a substantial impact on profitability, Karbonsan provides its customers the highest possible capacity without compromising safety and durability.





Cryogenic Air Gases

Karbonsan designs semi-trailers with excellent rollover stability and handling with lower center of gravity, lighter tare, shorter length and wide wheel base. For smooth and uninterrupted operation, we use MLI insulation and highly-efficient vacuum insulation technology for the manufacturing of our cryogenic semi-trailers.

Liquid Carbon Dioxide

It is possible to use PUR insulated mobile units without facing any disadvantages as long as the trip duration, waiting time on site and outside temperatures are not extreme. It is advisable to prefer investing in MLI and vacuum insulated semi-trailers in case such extreme cases are commonly faced during the LCO₂ transportation to the customers.

LNG

Karbonsan offers one of the market leading payloads in capacities with optimised design for LNG. The MLI and vacuum-insulated LNG semi-trailer is designed for high performance, ease of operation and safety. The ergonomic, simplified and durable design provides Karbonsan's customers a hassle-free operation for years.

LPG

Karbonsan LPG semi-trailers are designed for optimum and safe road transportation. They can be equipped with emergency discharge valves, manometers, temperature indicators; diesel, electrical or ex-proof hydro-motor pumping system, liquid and phase level indicators in conformity with ADR, TPED, relevant EN and ASME Codes.

ISO Tank Containers Cryogenic Air Gases, LCO₂, LNG and LPG

The ISO Tank Containers for liquefied gases are developed by professionals for professionals. As Karbonsan, we provide flexibility through standardization. You get shorter manufacture and delivery times by means of modular construction and consistent quality.





Cryogenic Air Gases

LIN, LOX, LAR, LCO₂ and LNG can use the same type of tank container the operating pressure of which is typically up to 24 bars (higher is possible depending on specification). Karbonsan can provide custom-built tanks for transportation of refrigerant gases, chemicals and non-pressurized liquids in addition to Cryogenic Air Gases, LCO₂, LNG and LPG.



LCO₂

The LCO₂ tank containers have been designed as standard 20 ft. ISO containers for the safe storage and transport of LCO₂. The tank containers also feature high quality super insulation, 9 units stacking capability, integral pressure building system, various pipework and valve options to offer maximum versatility to the end user and operator.



LNG

Karbonсан works hard to offer an extensive range of tank container capacities. The LNG ISO tank containers and portable fueling stations have approvals for road, rail and sea transport and hold ASME, US DOT, ADR, RID, IMO, CSC, UK DOT, UN portable tank T75 certificates. Design approvals may vary depending on options and country of operation.



LPG

Karbonсан has specialized in providing transport solutions to difficult logistical problems. As well as ISO-Tanks for bulk liquids, Karbonsan supplies custom-built tanks for the transport of liquefied gases such as propane and butane (LPG), refrigerant gases etc. We offer gas tank containers optimized as per the liquid to be transported.

LNG Systems

As LNG is highly volatile, specialist operators are involved in its transportation and handling. Karbonsan is at the service of its customers with our experienced engineers. We have a wide range of products including transportation, storage, vaporization, compression and turn-key LNG and LCNG Fueling, LNG satellite and transfer plants.





LNG as fuel

LNG's main applications can be mentioned as follows: as fuel for combined cycle/cogeneration power plants, as piped gas for households, as fuel for steam raising and heating applications, as fuel for engines instead of traditional fossil fuels and for derivation of several vital chemical products, e.g. methanol, LPG etc.



LNG and LCNG Fueling Stations

Karbonsan is at the service of its customers with our proven products and experienced engineers. Karbonsan has a wide range of products for the LNG world including transportation, storage, vaporization, compression and building of turn-key CNG, LNG and LCNG Fueling, LNG satellite and transfer plants.



LNG Trouble Shooting

Karbonsan provides a complete turn-key service for LNG and LCNG stationary and mobile fueling stations projects and manufactures various types of LNG satellite plants, enabling natural gas to be used at off pipeline locations. Different solutions are required for the various needs in the places like terminals, hotels, plants, mines and fueling stations.



Stationary and Transportable

Karbonsan builds LNG storage tanks up to 1.000 m³, LNG semi-trailers and transportable LNG tanks, 20 ft and 40 ft LNG ISO tank containers, Karbonsan cooperates with other reliable equipment suppliers to provide a complete turn-key service for LNG and LCNG stationary and mobile fueling stations projects.

Vaporizers and a lot more

The performance of ambient air vaporizers is subject to many factors. These include the flow rate, duty cycle, ambient temperature, relative humidity, freeze period, altitude, wind, solar radiation, operating pressure and proximity to adjacent structures. The ambient air vaporizers are the most economical type of vaporizer as they do not need any energy supply.





Vaporizers

The vaporizers are used in parallel with cryogenic and PUR insulated tanks. Ambient vaporizers represent the most cost effective equipment to vaporize or re-gasify cryogenic liquids. Karbonsan has a full line of low-pressure vaporizers, high-pressure vaporizers and pressure-building vaporizers that will adapt to all types and models of cryogenic tanks.



Cylinder Filling Stations and Pumps

Karbonsan cylinder filling stations and cryogenic cylinder filling pumps have been developed with these criteria in mind for the continuous and reliable supply of gases. Karbonsan, cooperating with reliable suppliers, offers complete cylinder filling stations for the industrial gas distributors, together with the cryogenic tanks, vaporizers and pumps required.



Vacuum Insulated Pipes

The vacuum insulated pipes may be modular in predefined sections as well as tailor-made as per requirement of the project to be applied. The pipes are fully fabricated, tested and supplied in engineered sections in advance. The installation of vacuum insulated pipes at site becomes quite simple by using bayonet couplings.



Research and Development

While we manufacture our conventional products, we keep up with novelties. We dedicate our experienced engineers for enhancements such as cooling systems out of excess heat, new PLC automation systems, thermal storage and many other research and development projects in cooperation with distinguished research centers and universities.

After Sales Services

Karbonsan provides after sales services along the whole project lifecycle, including inspections, repair and start-up supervision. An increasing number of Karbonsan customers benefit from the competence of our skilled and experienced team. We offer dedicated technical staff to meet your needs through our workshop in Bursa, Türkiye or on-site. After Sales Services is usually associated with repairs and spare parts.





Tank Repair and Refurbishment

Karbonsan offers repair and refurbishment facilities which will enable virtually all types of cryogenic storage vessels to be returned to an 'As New' condition. Karbonsan repair facility is integrated with the manufacturing site, so the latest updates in equipment design and manufacturing processes are always built into your repairs.



Service and Maintenance

Periodical inspections, preventive and curative maintenance, training and consultancy for customer tanks and tankers can be performed by Karbonsan technical staff on contract based or upon request. Karbonsan employees have the necessary skills and fabrication capabilities to help with even the most challenging applications.



Commissioning

As Karbonsan, we enhance our service team continuously to install all types of cryogenic equipment to become a one-stop-shop for our customers. Our typical deliveries include pre-engineering, detailed engineering, procurement, manufacturing, transportation, training, installation and start-up at the customer site.



Spare Parts

When a situation arises where you need a service or spare parts, the speed is obviously critical. We always stock many critical parts in Karbonsan inventories for our worldwide customers. The technical support to select the right spare part, prompt reply and same day shipping of stock items are our priorities.

Marine Solutions

Karbonsan in cooperation with partner shipyards provides integrated solutions for Marine Industry since 2018.





Karbonsan offers High Quality Type C LNG Fuel Tanks with Integrated Engineering Solutions on the Voyage to Decarbonisation.

- Storing cleaner fuels for ship power requirements as LNG / Biomethane or Methane Blends
- Storage for emerging and future fuels Methanol / Ammonia and e-Fuels
- Storing on board captured and liquefied LCO₂



IMO and EU's Fuel-EU Maritime regulations set challenging Emissions Reduction Targets progressively and enforce Marine industry to take immediate action, where LNG supports meeting the intermediate emission targets with its mature technology for fuelling and storage as well as having wide availability all around the world at almost any port.

Karbonsan is ready to support your decarbonisation efforts with its experienced team.



Certificates

Karbonsan has been qualified for the stringent inspections of international societies such as the compliance of the regulations and safety management. As an outstanding corporation that has acquired various international certificates, Karbonsan has officially been recognized for safe management of manufacturing, providing high reliability with regards to quality and service to various overseas clients.



Safety first



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018



ISO 10002:2018



ASME
U Stamp



ASME
S Stamp



R
R Stamp



NB
NB Stamp



Factory Approval



Factory Approval



PED 2014/68/EU



GMP for Medicinal
Products



EN 13445-1



EN ISO 3834-2



EN 14398-2



ADR 2015



Headquarters:

Atatürk Mah. Metropol İstanbul A3 Blok No.:64
34758 Ataşehir - İstanbul, Türkiye
Tel : +90 216 302 20 20
Fax : +90 216 414 43 82
E-mail : info@karbonsan.com.tr

Factory:

Fatih Mah. Gölyolu Cad. No:38 / 1, Orhangazi
16800 Bursa, Türkiye
Tel : +90 224 573 16 35
Fax : +90 224 573 16 40
E-mail : info@karbonsan.com.tr

A World of Choices