

We Produce Safely for the World!

Together with Our Strong and Experienced Partners,
We Also Offer Design, Assembly and Installation Services for
LPG Storage Terminals and LPG Cylinder Filling Plants



HARSAN
TANKER & CRYOGENIC

About us

Harsan Tanker & Cryogenic, established in 2014 in Kocaeli, is a company specializing in the manufacture of Pressure Vessels, LPG projects, and Cryogenic Storage and Transportation Tanks (LIN-LOX-LAR-LNG-LCO₂). Committed to delivering high-quality and reliable products to the market, our experienced team specializes in the manufacturing of cryogenic tanks, pressure vessels, heat exchangers, equipment, pipelines, and spool pipes in accordance with ASME, EN, CE, and API standards.

Our company serves various industries, including petroleum, gas, petrochemical, as well as medical and energy sectors. As one of Turkey's leading manufacturers, we possess significant expertise in the Tanker, Trailer, and pressure vessel manufacturing sectors. Our products have received positive feedback both in the domestic and international markets, contributing to the continuous growth of our customer portfolio abroad.

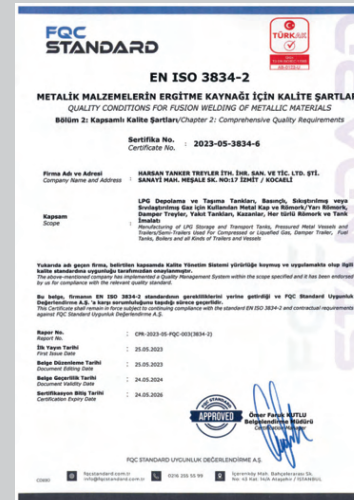
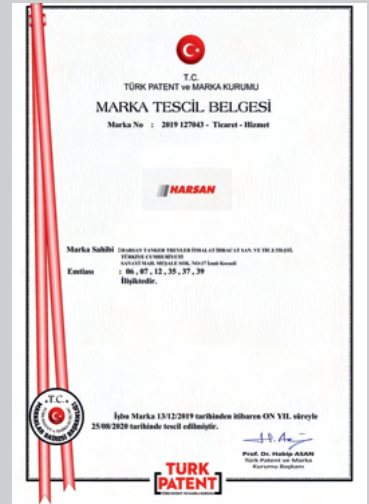
Our Vision

To be a global leader in the design and manufacturing of Cryogenic and LPG solutions, recognized for our commitment to innovation, sustainability, and exceptional quality. We aim to surpass customer expectations consistently, shaping the future of the industry, and contributing to a safer, more efficient world.

Our Mission

Our mission is to provide reliable, state-of-the-art cryogenic products that empower industries worldwide. Through A relentless pursuit of excellence. We aim to deliver customized solutions that not only meet but surpass the evolving needs of our clients. We are dedicated to fostering a culture of integrity, environmental responsibility, and social impact, ensuring enduring success for our customers, employees, and communities.

Our Certificates



HARSAN
TANKER & CRYOGENIC

Our Production Facilities

Situated in the burgeoning industrial landscape of Kocaeli, Harsan proudly introduces its cutting-edge manufacturing Facility, this contemporary facility stands as a testament to Harsan's commitment to precision, efficiency, and innovation in every aspect of production.

Located strategically in Kocaeli, a bustling economic hub, Harsan's facility thrives within an industrial ecosystem renowned for its robust economic contributions. This strategic positioning not only provides access to a vibrant industrial community but also places Harsan in close proximity to international ports, streamlining logistics for the importation of raw materials and exportation of finished goods.

At the core of Harsan's manufacturing prowess lies an investment in cutting-Edge machinery, reflecting a dedication to excellence. The facility seamlessly integrates advanced technology, ensuring Harsan maintains a pioneering position at the forefront of manufacturing innovation.



35+

Countries Of Product Sales



77+

Experienced Employee



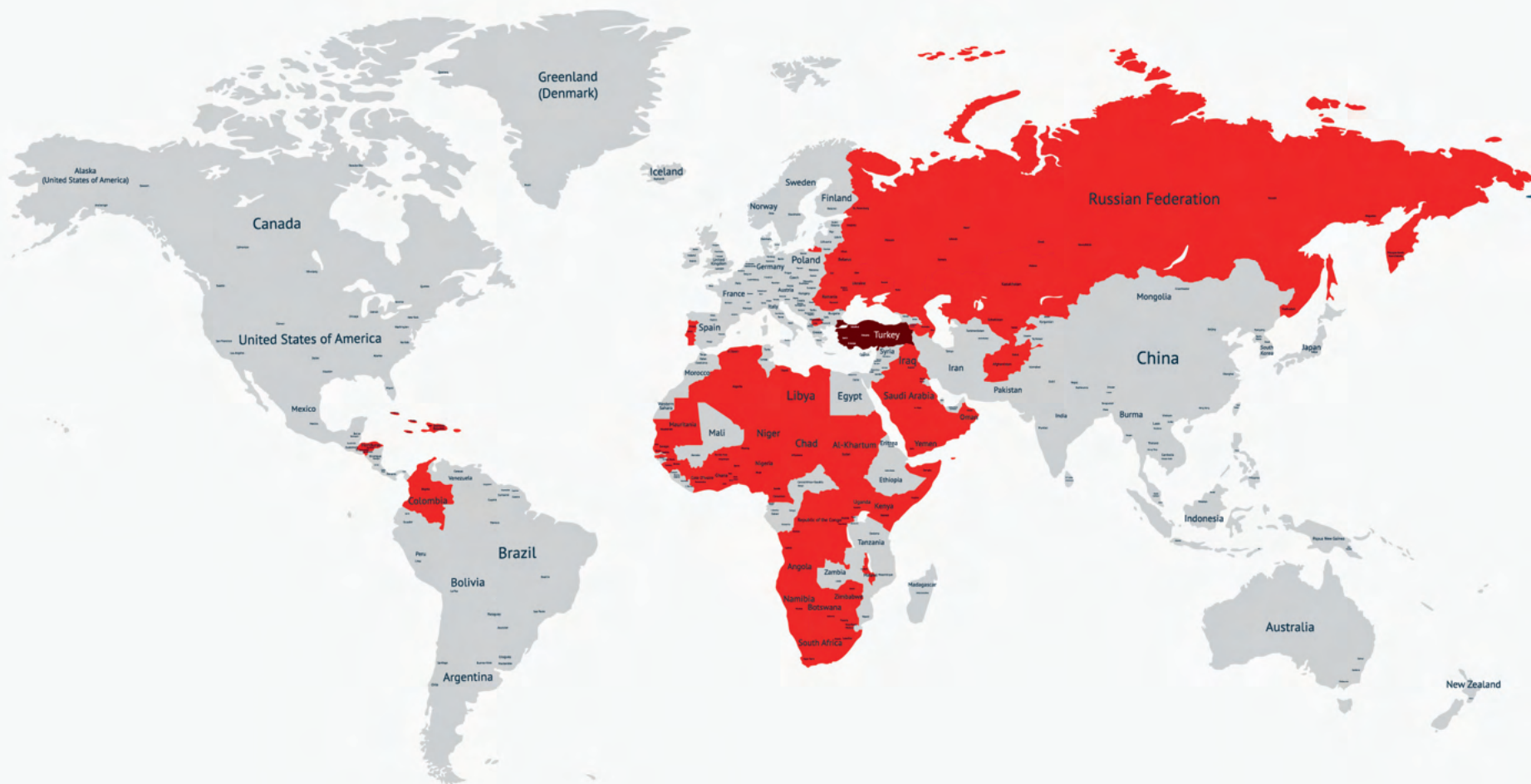
2400+

Approved Project Design



1000m³

Largest Volume Capacity



HARSAN
TANKER & CRYOGENIC

Our Products



LPG



Cryogenic



Fuel

LPG



Transport Tanks



Storage Tanks



Skid Dispenser System



Skid Cylinder Filling Systems



Ammonia Transport and Storage Tanks

LPG Transport Tanks



- **TPED & AD 200 Certification**

IV. party is conducted with the supervision of the establishment. Compliance with national and international current legislation and full, safe inspection by an expert team.

- **New Generation Design Maximum Load**

The latest technology applied aims to ensure that the maximum load is transported in the safest way possible.

- **High Strength Special Body Material**

Tank body and domes are produced from special hard material for pressure vessels in AD 2000 standards.

- **Lamination System**

Compared to the standard material used for pressurized road tankers, thanks to the state-of-the-art lamination system, sheet thicknesses have been reduced to a minimum thickness with optimum calculation , and product weight has been lightened.

- **Heat Treated Bombs**

According to the AD 2000 standards, interior cambers are designed to increase the stability of the vehicle on the road . It is equipped with hard but light single piece high strength carbon steel domes according to standard applications, it creates resistance to vibrations that may occur during the transportation of heavy loads.

- **Sun visor**

With the sunshade applied on the tank, the temperature affected by the tank surface is reduced.

LPG Storage Tanks



- We are capable of manufacturing high-capacity and domestically low-capacity LPG storage tanks within the range of 1m³ to 400m³, meeting AD2000, CE, and ASME standards.

Underground and Above Storage Tanks

- Different models for domestic tanks, whether installed above or below ground.
- Standard manufacturing according to EN12542, EN 13445, and PED.
- Design and manufacturing can be done according to AD2000 Merkblätter, ASME, or other standards upon customer request.
- Independent inspection by TUV for the manufacturing and testing of tanks.
- Compliance with PED 97/23/CE EU directive in design and manufacturing. Production according to ASME DIV II standards is also possible upon customer request.
- Use of specially produced carbon steels for pressure vessels in accordance with EN 10028-3 P355 quality.
- Welded joints undergo testing according to manufacturing standards.
- Hydrostatic pressure testing of all tanks after manufacturing.
- Surface preparation through grid blasting according to SA2.5 standard, followed by the application of epoxy primer and two epoxy paint layers.
- Determination of whether the tank is for above or below-ground use based on HARSAN quality standards, ensuring the highest paint quality for the entire service life of the tank.

Skid Dispenser and Cylinder Filling Systems



- Ready to use. Just connect the power line and turn on the switch.
- It is very easy to use.
- Includes all necessary equipment, items and connections.
- Can be moved everywhere.
- All electrical accessories are ex-proof.
- The equipment and machines conform to EU standards and are CE or AD2000 certified.
- Tank is designed with cylindrical section and designed with the most durable and safest combination.
- Our tanks use special high strength, fine grained, normalized "P" series pressure vessel steel in accordance with EN 10028-3. The mechanical and metallurgical properties of the steel are tested and verified.
- An elliptical dished head end is used in tank heads with stress relieving according to standards.
- Manufacturing and quality processes are carried out under the supervision of an independent inspection body, in accordance with standards and procedures, by a qualified, experienced engineer.
- Welding is done by certified welders in accordance with standards and materials.
- Certified NDT personnel international competence making in testing and controlling all welded joints.
- Once installed, all tanks are subjected to a hydrostatic pressure test. After this test, the connections of the tank accessories are tested with air against leaks.
- Outer surfaces of the tank are sandblasted at SA quality 2.5 before painting.
- Provide the best product to the customers by using corrosion resistant, long lasting, high quality two component paint products of paint companies which have proven internationally for dyeing.



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Ammonia Transport and Storage Tanks



- TPED & AD2000 Certification is carried out through third-party audits.
- Compliance with national and international regulations and expert inspections by a specialized team.
- Next-generation design aims for the safest possible transportation of the maximum load using the latest technology.
- Tank body and heads made of special hard material for pressure vessels according to AD2000 standards.
- Lamination system reduces plate thickness through optimum calculation, minimizing product weight compared to standard materials used for pressured road tankers.
- Heat-treated heads designed to enhance the stability of the vehicle on the road.
- Sunshade application to reduce the temperature impact on the tank surface.

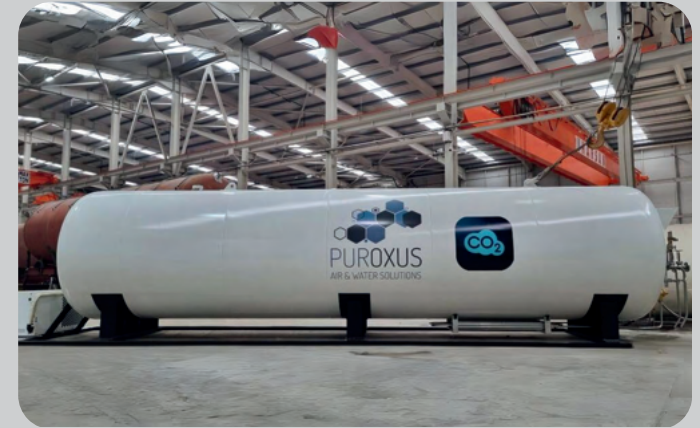
Cryogenic



LIN LOX LAR



LNG



LCO2



Evaporator

LIN LOX LAR



- Cryogenic temperatures, defined as those ranging from -150°C to absolute zero (-273°C), play a crucial role in the liquefaction of various gases, including oxygen, hydrogen, helium, argon, and nitrogen. The production of cryogenic tanks is geared towards efficiently transporting and storing liquids in their liquid phase, such as liquefied natural gas (LNG), liquefied nitrogen (LIN), liquefied argon (LAR), and liquefied oxygen (LOX). These tanks consist of an inner tank and outer body to safeguard the liquefied gas phase.
- The inner tank is crafted from 304L quality stainless steel, while the outer tank is constructed from carbon steel. Once the inner tank is positioned within the outer tank, the space between the two is filled with cryogenic perlite aggregate. Heat transfer is minimized by creating a vacuum to the theoretical absolute vacuum value. This ensures that the liquefied material maintains its state for extended periods, resulting in both prolonged performance and low maintenance costs. Additionally, depending on project requirements, a super thermal insulation application can be implemented.
- Our design adheres to standards such as AD MERKBLATT CODE 2000, EN 13458, EN 13530, ADR 2013, and ASME Sec VIII Div1. We also offer design and manufacturing services conforming to various local standards based on customer requests.

LNG



- Natural gas is composed primarily of approximately 90% methane, along with ethane, propane, butane, and other hydrocarbons. When natural gas is cooled to -162°C under atmospheric pressure, it undergoes condensation and transitions into a liquid phase. This transformation from gas to liquid gives rise to the term 'Liquefied Natural Gas' (LNG). During the liquefaction process, impurities such as carbon dioxide, sulfur compounds, and water, which can adversely affect combustion, are effectively removed. This purification enhances the purity and efficiency of the liquefied natural gas.
- The volume of natural gas is significantly reduced, approximately 600 times, as it shifts from the gaseous phase to the liquid phase. This characteristic enables the transportation of large quantities of natural gas at low pressures, providing a viable solution for areas located far from natural gas pipelines. LNG addresses the energy needs of diverse environments such as schools, factories, mining areas, metal enterprises, residential areas, and more. Solutions tailored to each case are developed, considering the distinct energy requirements of these various settings.
- In LNG tanks, all necessary markings compliant with CE, П, and relevant standards are meticulously adhered to

LCO2



- Carbon dioxide (CO₂) exhibits a distinct structural composition compared to other cryogenic gases, leading to unique design considerations for Liquefied Carbon Dioxide (LCO₂) tanks. These tanks, designed for long-term storage of liquid carbon dioxide, can be configured either vertically or horizontally, with evaporation rates kept exceptionally low through high-performance thermal insulation.

There are two main types of isolation for liquid carbon dioxide tanks:

- Polyurethane Isolation Tanks: These tanks are designed to efficiently store liquid carbon dioxide, even in environments with elevated air temperatures and humidity. The main tank is enveloped in polyurethane. The strong adherence of the polyurethane to the tank's surface prevents air contact, reducing the risk of corrosion. The polyurethane insulation is further protected by an aluminum jacket, mitigating potential mechanical damages and the impact of humidity on the insulation.
- Perlite – Vacuum Insulated Tanks: Double-walled LCO₂ storage tanks with perlite-vacuum insulation can be manufactured in both vertical and horizontal configurations. The high-quality perlite vacuum insulation ensures safe, flexible, and cost-effective operation.
- Our design standards adhere to industry benchmarks such as AD MERKBLATT CODE 2000, EN 13458, EN 13530, ADR 2013, and ASME Sec VIII Div1. Additionally, we offer design and manufacturing services in accordance with various local standards based on customer requests.

Evaporator



- Vaporizers, also known as evaporators, play a crucial role alongside cryogenic tanks in the vaporization of various cryogenic liquids such as liquid carbon dioxide (LCO₂), oxygen (LOX), nitrogen (LIN), argon (LAR), and other transported and stored gaseous fluids. These vaporizers utilize the ambient temperature to provide the necessary energy for the cryogenic liquid to evaporate, returning it to the gas phase for consumption.
- Manufactured through the serial and parallel connection of winged tubes made from a special extruded aluminum alloy, these evaporators are designed to efficiently facilitate the phase transition of cryogenic liquids. The winged tubes maximize heat transfer by interacting with the environment, ensuring that the gas capacity required for various applications is met effectively.
- HARSAN produces low-to-high-pressure evaporators with careful consideration of factors directly impacting evaporator performance. These factors include material flow rate, operational duration, ambient temperature, relative humidity, freezing time, geographical altitude of the operating region, wind, solar radiation, and more.

Fuel Transport Tankers



- The tank is designed with a cylindrical section to create the most durable and lightest tank-chassis combination.
- Our designs have all qualified brake and rollover stability performance tests.
- Our tanks use special high strength, fine grained, normalized "P" series pressure vessel steel in accordance with EN 10028-3 standard. The mechanical and metallurgical properties of the steel are tested and verified.
- Elliptical dished head ends are used in the tank headers with stress relieving according to the standards.
- Manufacturing and quality processes are carried out under the supervision of an independent inspection firm in accordance with standards and procedures with expert, experienced engineer team.
- Welding is done by certified welders in accordance with standards and materials.
- Tested and controlled by all our welded joints are made by our certified NDT personnel with competent and international validity.
- The inside of the tank is equipped with purge and ring with bolt connection according to the standards.
- Chassis will be delivered with cold mark and identification plate approved.
- Chassis Made of high strength steel to withstand all kinds of road and load conditions.
- Parking Legs are offered with dual-speed trailer type models each with 25 tons dynamic and 50 tons static load capacity and different brand options.

Contact Us



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