# CRYOBOX

Now, **LNG** can drive your projects

GALILEO

CRYOBOX

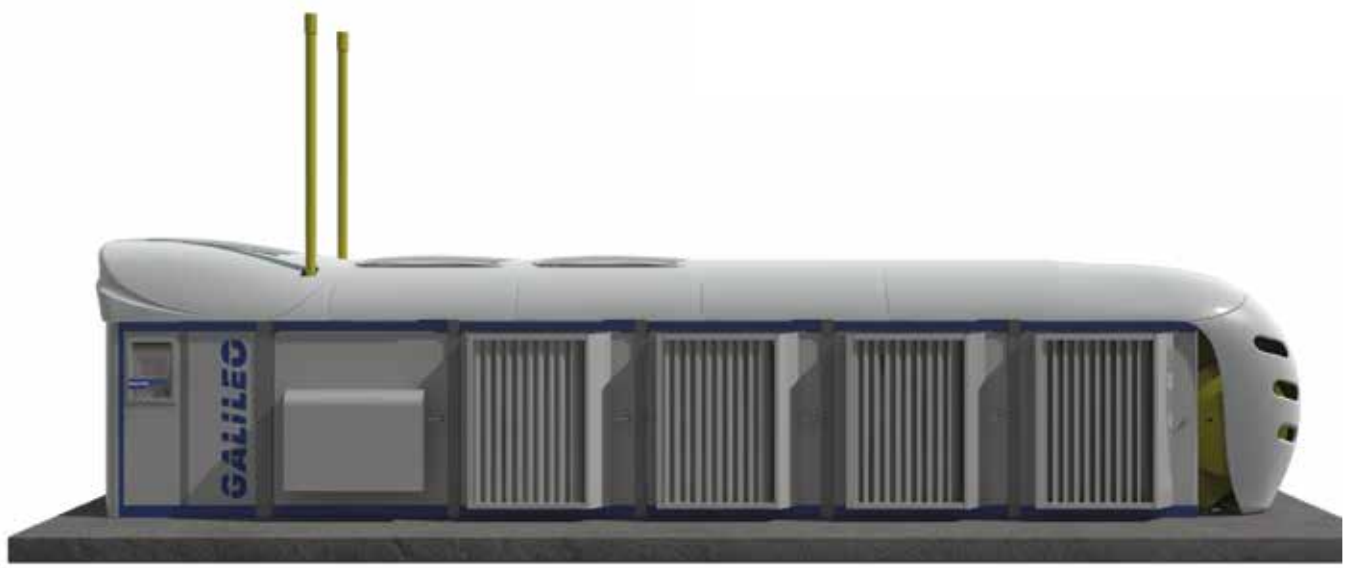
# Now, LNG can drive your projects

## The Cryobox Nano LNG-Station makes it happen.

The LNG produced by the Cryobox® Nano Station can supply the fuel for your company, whether it's a heavy transport venture, a mining enterprise, an industry located in a remote region or a community far removed from a gas pipeline. Neither technological limitations nor large investment capital requirements will prevent you from using low $CO_2$ emission LNG in place of diesel or fuel oil. Cryobox will allow you to become your own producer of LNG, meeting all environmental requirements even in the fuel-production and storage phase.

### Clean transportation that carries you further.

While Cryobox® turns LNG into an available and financially convenient source of clean fuel, there are even more benefits. Compared with any other Diesel substitute, LNG has superior energy density. This means that a given tank of this fuel will carry you further. For this reason LNG is the most appropriate and cleanest fuel for heavy, long-distance transport such as heavy trucks, buses, ships, barges, ferries and railroad locomotives when long distances need to be covered and refueling opportunities are scarce.




Cryobox® has an adjustable production capacity of up to 9 013 gpd (gallons per day). The high-pressure, thermodynamic cycle of the Cryobox converts natural gas to the liquid state as temperatures are reduced to less than -225 °F . This multi-stage compression process includes a **"boil-off" recovery system** which eliminates all gas-venting usually associated with LNG storage and loading facilities. This process avoids gas waste while complying with all safety and ecologic regulations.

### Be a pioneer, not simply an early adopter

Cryobox® packages all the capabilities of a large scale LNG plant into one compact and transportable module which shares the off-the-shelf components and main features of Galileo´s compressor packages, namely: modularity, low weight, economies in transport and ease of installation. You can be a leader in the LNG revolution by implementing the widely proven technology of Galileo.

## “Plug & play” and enjoy the benefits of LNG

Since no additional constructions —such as perimeter containment walls— are necessary, Cryobox® can be hauled anywhere by a simple trailer for immediate connection and start-up. Due to its packaged configuration, Cryobox® can be placed in a fuel-station and connected to the natural gas distribution line. It can also be installed right at the well-head of a distant oil & gas field. In this latter location, Cryobox® creates an additional environmental benefit by converting contaminating vented gas into a high value added liquid fuel.

## LNG can become part of life and business

When natural gas demand does not justify the investment in a conventional pipeline, Cryobox® is the best complement to Galileo´s Virtual Pipeline, supplying natural gas by highway to mines, remote industries and isolated communities beyond 250 miles. This is possible because the Virtual Pipeline can optimize truck capacity and transport costs owing to LNG properties.

## As an additional bonus, you get CNG for your urban mobility.

The Cryobox® has the alternate capacity to supply CNG for your own local fleet of vehicles, or to refuel other urban vehicles.

## More key features

- Scalability: installation can grow according to demand changes.
- Low operating costs.
- Low power consumption.
- Fully automated operation.
- Remote monitoring through Global SCADA. Galileo control platform.
- Minimal storage.
- Intrinsic safety.
- Minimal noise and vibrations.


**Cryobox® is the technology for LNG production that Buquebus** has chosen to feed the gas turbines of the first environmentally clean and high speed ferry in the world.

## Awarded project

Buquebus has been honored with the annual Black Diamond Award. This award is given to the top LNG fuel project to advance technology, open new markets, and achieve the smoothest execution considering the degree of difficulty.

CRYOBOX
Nano LNG-Station

# Now, LNG can drive your projects

| | | CRYOBOX-500-11 | CRYOBOX-600-15 |
|---|---|---|---|
| **Inlet pressure** | | | |
| | psi | 156 | 213 |
| | bar R | 11 | 15 |
| **LNG production capacity** | | | |
| | gal/day | 7 683 | 9 013 |
| | ton/day | 12.48 | 14.64 |
| | l/day | 29 091 | 34 126 |
| | $nm^3$/day | 16 640 | 19 520 |
| | kg/h | 520 | 610 |
| **LNG delivery conditions** | | | |
| Pressure | psi | 29–58 | 29–58 |
| | bar R | 2–4 | 2–4 |
| Temperature | - F | 243.4–225.4 | 243.4–225.4 |
| | - C | 153–143 | 153–143 |
| Transfer method to the storage tank: differential pressure, no need for venting or pumping | | + | + |
| No boil-off / No emissions | | + | + |
| **Energy consumption** | | | |
| Consumed power | kw | 444 | 493 |
| Installed power | kw | 450 | 494 |
| Gas or electric driven | | + | + |
| **Dimensions** | | | |
| Length | ft | 41.306 | 41.306 |
| | m | 12.328 | 12.328 |
| Length with open doors | ft | 43.307 | 43.307 |
| | m | 13.200 | 13.200 |
| Width | ft | 8.681 | 8.681 |
| | m | 2.646 | 2.646 |
| Width with open doors | ft | 17.783 | 17.783 |
| | m | 5.725 | 5.725 |
| Height | ft | 9.226 | 9.226 |
| | m | 2.812 | 2.812 |
| **Sources** | | | |
| Natural gas from pipelines | | + | + |
| Stranded / Associated gas | | + | + |
| Biomethane | | + | + |
| **Application fields** | | | |
| Filling stations for long haul vehicles, vessels and trains | | + | + |
| Industrial use | | + | + |
| Gas distribution | | + | + |
| Bunker fueling | | + | + |
| **Alternative fuel production** | | | |
| CNG (Compressed Natural Gas) | mscf/day | 1.015 | 1.260 |
| | gge/day | 8 120 | 10 080 |
| | dge/day | 7 519 | 9 333 |
| | $nm^3$/day | 29 000 | 36 000 |
| **Operational management** | | | |
| Remote monitoring | | + | + |
| Compliance with international standards | | + | + |
| Low maintenance | | + | + |
| Low operative cost | | + | + |

Notes:
• Performance parameters refer to natural gas composed by 100% Hydrocarbons and a reference specific gravity 0.65 kg/$m^3$ (0.276 lb/$ft^3$). Inert gas portions have to be deducted. Deviations in the Specific Gravity may modify the performance. • Performance values refer to an average ambient temperature of 22 °C (72 °F). For other temperatures, performance has to be corrected by temperature correction charts. • All performance parameters contained in this datasheet have a tolerance of ± 10%

For further information, call us at
+ 54 11 4712 8000 or follow us on:
www.galileoar.com

GALILEO Technologies