

SHIPBOARD-READY BOIL-OFF GAS MANAGEMENT SYSTEM

Cosmodyne's shipboard ready systems automatically control boil-off gas generated from anystorage tank containing LNG or other cryogenic liquids. The system works with tanks in most applications including pressurized tanks or those operated at atmospheric pressures.

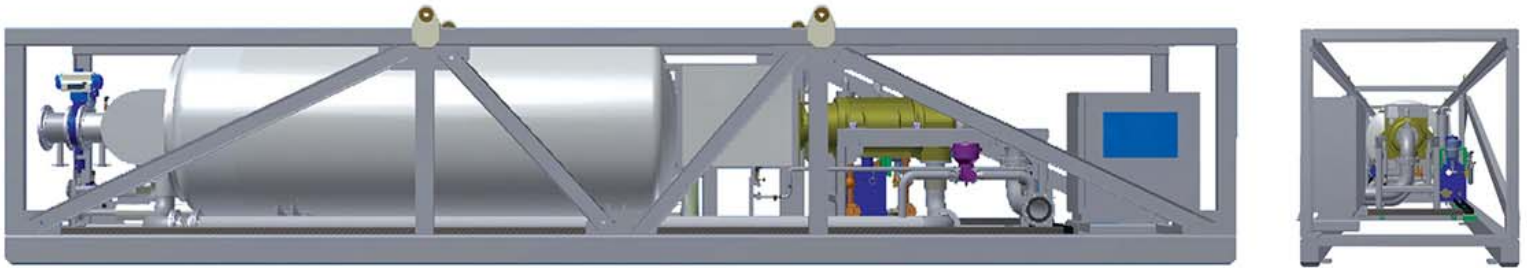
Cosmodyne offers two boil-off gas options that utilize a simple nitrogen based refrigeration cycle. The first option sub-cools a stream of LNG that is passed through a client's spray header to collapse pressure. The second option re-liquefies the boil-off gas and the resulting

LNG stream returns to the client's tank.

Founded in 1958, Cosmodyne is a leading manufacturer of cryogenic plants with more than 450 placed in operation around the globe. Cosmodyne natural gas liquefiers have been used to provide LNG fuel for high horsepower uses like marine, rail, mining, trucking, and oil-field applications, virtual pipelines, and utility peak shaving. Cosmodyne is part of the Cryogenic Industries family of companies which include ACD, LLC and Cryoquip, LLC. For more information, visit us at www.cosmodyne.com.

By listening to our clients needs, we've designed a simple, compact and safe solution with the following key features:

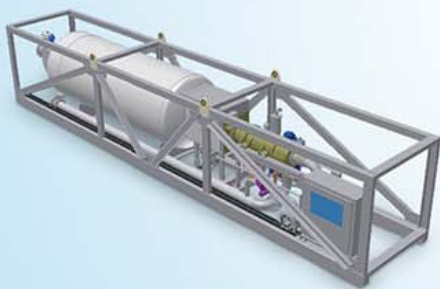
- Refrigerant cooling provided with environmentally friendly and safe nitrogen refrigerant
- All major components designed and manufactured in Cosmodyne's shops
- Comes packaged as two distinct, pre-piped, pre-wired modules: cold box-refrigeration skid (no motors) and the nitrogen compressor skid
- Optional air-cooling or sea-water closed-loop cooling system can be provided if client does not have a source of fresh cooling water
- All equipment can be located in gas safe area. There are no motors in skid containing the heat exchanger. All LNG systems are double-contained; annular space can be purged with nitrogen
- System requires a supply of low voltage power, sea water and a small amount of nitrogen make up (for seal losses)



COSMODYNE BOIL-OFF GAS MANAGEMENT SYSTEMS

- Vapor recondensing or liquid subcooling
- Simple and safe nitrogen refrigeration cycle
- Small footprint, modular and easy to install
- Robust controls package for unattended operation

Over 50 Years of Cryogenic Innovation



 **COSMODYNE**
A Cryogenic Industries Company
info@cosmodyne.com

