# Thermax Inc.



Proven

Vaporizers & Gas Superheaters

for all

Cryogenic & Liquefied Gases

www.thermaxinc.com



### Thermax Inc.

Engineers & Manufactures vaporizer solutions from 1-2,800,000 SCFH or 1-80,000 Nm/hr. Our Vaporizers are designed to use any energy source: Electric Power, Ambient Air, Steam, Cold Water, Hot Water, Seawater, and Gas/Fuel Fired Combustion.

Our Vaporizers and Gas Heaters/ Coolers handle liquids, liquefied gases, other fluids and vapors including LNG, LPG, O2, N2, Ar, H2, He, CO2, NH3, C4H10, CO Cl2 C2H6, CH4, C2H4, C3H6, F2, HCl, NO2, N2O, & SO2

Thermax Inc. manufactures in Asia, Europe and North America to any International Code or Practice.

We offer on time delivery and superior quality with flexible, efficient project control and design.



#### **Electric Vaporizers & Trim Heaters**

**Typical Applications:** 

- C0<sub>2</sub> liquid storage sites, pressure building
- Northern location bulk N<sub>2</sub> systems
- Ambient vaporizer superheaters
- High-pressure cylinder filling

#### **Ambient Vaporizers**

**Typical Applications:** 

- Customer stations
- Cylinder filling locations
- Continuous switching applications
- Plant back-up systems
- LNG gasification at peak shaving, satellite and import terminals

## Fan-Ambient Vaporizers Typical Applications:

**Typical Applications:** 

- Hi-flow limited space demands
- Chemical plant inerting systems
- Cylinder filling plants
- LNG floating storage and regasification applications

#### **Steam Vaporizers**

Typical Applications:

- Pipeline back-up systems
- Hi-flow bulk service accounts
- In-plant purge systems
- Heavy, continuous service flows
- Onboard sea going LNG carriers (FSRU)

#### **Cold & Hot Water Vaporizers**

Typical Applications:

- Cylinder filling systems
- Hazardous gas and LNG applications
- Remote, standby operations
- Off spec liquid disposal
- Onboard sea going LNG carriers (FSRU)



## Water Bath Vaporizers; Gas Fired, Steam, Electric

**Typical Applications:** 

- Water-ballast peaking systems
- Standby, emergency capacity systems
- High Volume continuous use
- Air Separation Plant backup
- LNG peak shaving, satellite plants and import terminals

#### Features

Thermacast™ aluminum block vaporizers contain Stainless Steel vortex vaporizer coils and sealed, replaceable cartridge heaters for extended service life. Fully automatic, NEMA rated electrical switchgear and controls are standard. See Datasheet 1.0. 1.1

#### **Features**

Thermafin™ & Megafin™ rugged vaporizers feature Hi-flux aluminum extrusions for closer approach temperatures at low-pressure drop. For high pressure application units are lined with stainless steel

See Datasheet 3.5. 3.9

#### **Features**

Cryoduct™ Vaporizers have hi-performance direct drive industrial fans coupled to ducted Thermafin™ vaporizers. Automatic fan controls and motor starters are included. These units provide high ambient capacity in less space and permit rapid defrosting. See Datasheets 4.0, 4.1

#### Features

TVN-steam units are compact and economical with full steam controls and removable all stainless steel tube bundles. Our anti-surge vortex designs provide for smooth continuous operation.

See Datasheet 5.0

#### **Features**

TVN-PW Vortex-Flow Circulation Cryogenic Vaporizers are able to utilize sea water or fresh water with supply temperatures down to 45°F and no risk of freeze up.
See Datasheet 7.0

#### **Features**

Designs feature a wide variety of thermal ballast water tanks, indirectly heated by fire, steam or electric power. Removable TVN vortex tube bundles are designed for natural convection & are built to application pressure

See Datasheet 2.0, 6.0, 8.0

