

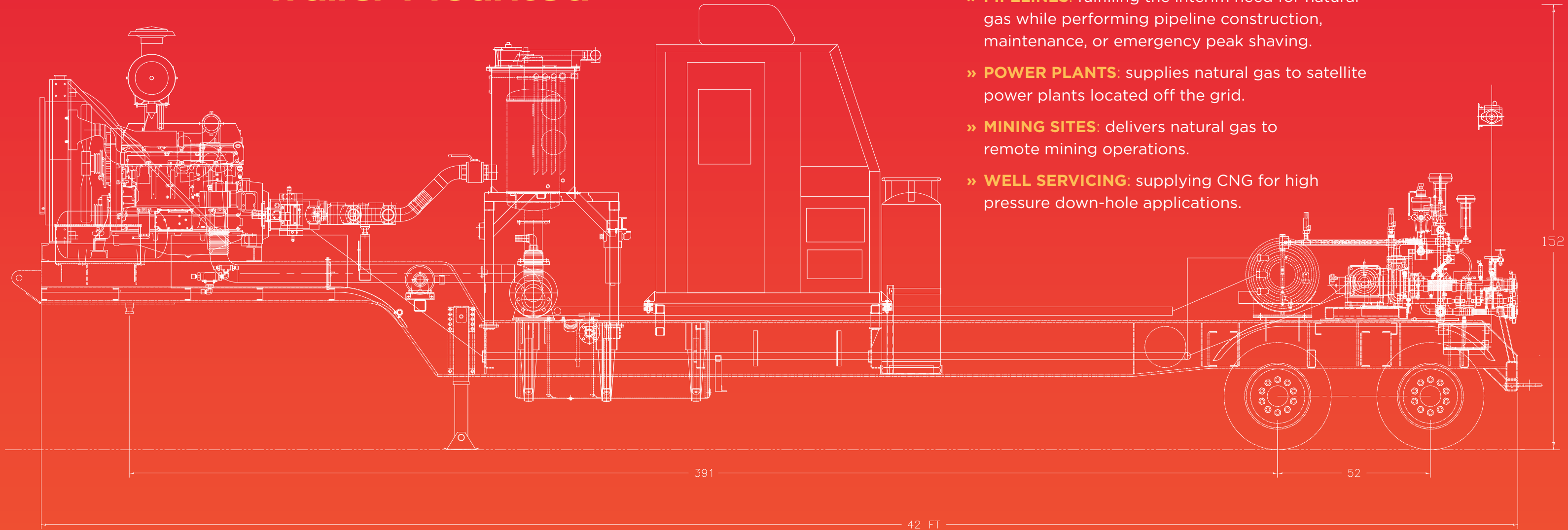


High-Capacity LNG
REGAS UNIT



FLAMELESS LNG CONVERTER

Trailer Mounted



Mobile & Turnkey

Supplying fuel quickly and remotely to:

- » **FRAC FLEETS:** provide compressed natural gas to frac fleets virtually anywhere.
- » **PIPELINES:** fulfilling the interim need for natural gas while performing pipeline construction, maintenance, or emergency peak shaving.
- » **POWER PLANTS:** supplies natural gas to satellite power plants located off the grid.
- » **MINING SITES:** delivers natural gas to remote mining operations.
- » **WELL SERVICING:** supplying CNG for high pressure down-hole applications.

Model VNF-150K/300K

This LNG regas system is equipped with a reciprocating triplex pump and centrifugal booster pump. The **flameless regasification system** is powered with an internal combustion engine equipped with a hydraulic power transmission package. The engine can be equipped with a dual fuel kit to utilize a portion of the produced CNG, displacing up to 70% of the diesel required for operation.

The instrumentations and controls are installed within a class 1 division 2 operator cabin. The hydraulic system provides power to all hydraulically-driven components and is designed to artificially load the unit's engine to generate heat.

The unit is equipped with Vita's patented **Quad-Phase Flameless Vaporizer**. The vaporizer is capable of maintaining a minimum of 70°F CNG discharge temperature at all flow rates and pressures.

More capacity, **SMALLER FOOTPRINT.**

Innovation changes everything.

Doing more with less is at the heart of the Vita International design philosophy.

This approach is clearly evident in the patent pending **Flameless LNG Converter**.

The VNF-150K/300K is capable of pumping and vaporizing LNG at rates up to (28) gallons per minute producing a maximum **150,000 SCFH** of CNG at pressures up to 3,000 psi. The system's capacity can be expanded up to **300,000 SCFH** and is able to operate at higher pressures.



The highest pressure rating of an ambient, electric, or direct fired system currently on the market is less than 500 psi. **Vita's unit supplies 5x the pressure.**

The entire pumping and regas system is installed on a road legal 42' long dual-axle trailer.

All the capacity you need is in one innovatively designed and substantially smaller package.

Approximate total weight GVW:
30,000 lbs.

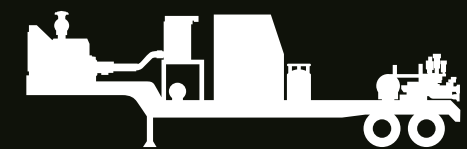
The unit's approximate dimensions:
H x L x W: 13'2" x 42' x 8'6"

A smaller footprint makes LNG viable in more locations.

There are many benefits to using Mobile LNG: **cost savings**, **lower environmental impact** and **flexibility**. Now these benefits are available virtually anywhere.



30,000 SCFH



Up to
300,000 SCFH



Increase FLEXIBILITY

Whether you need to setup near your operation or the situation dictates some distance, the **VNF-150K/300K** flexibly meets your requirements.

Efficient and Safe LNG Regasification

Unlike open flame water bath methods currently used, Vita's mobile, flameless heat transfer process safely and efficiently regasifies LNG.

Innovative Use of Superior Technology

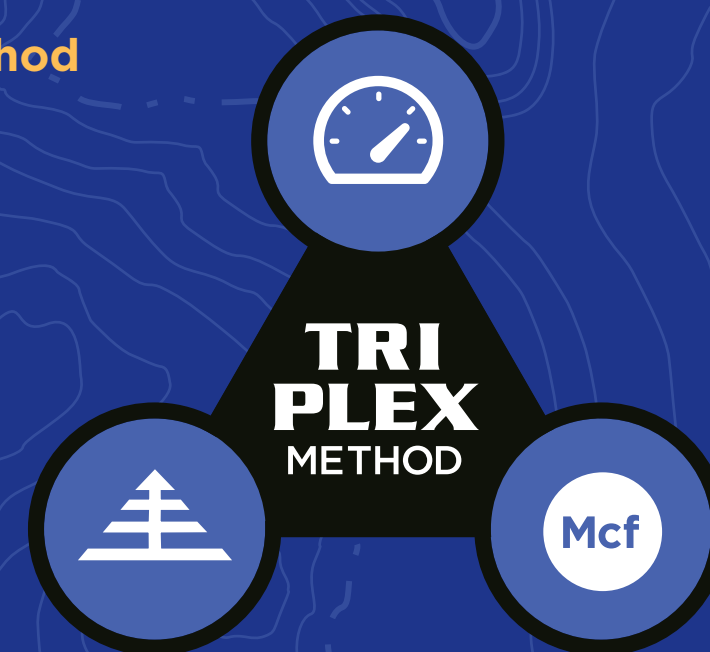
Vita's heat recovery technology is easily adaptable for a variety of products. The flameless heat transfer system uses superior technologies to effectively transfer more heat from a flameless source. Vita's patented Quad-Phase heat exchanger, proprietary "dynamic loading" feature, and unique open-loop hydraulic circuit achieve the objective of safe operation in restricted areas, reducing training time for operators, and promoting longer life of components.

UP TO 1 MILE DISCHARGE DISTANCE

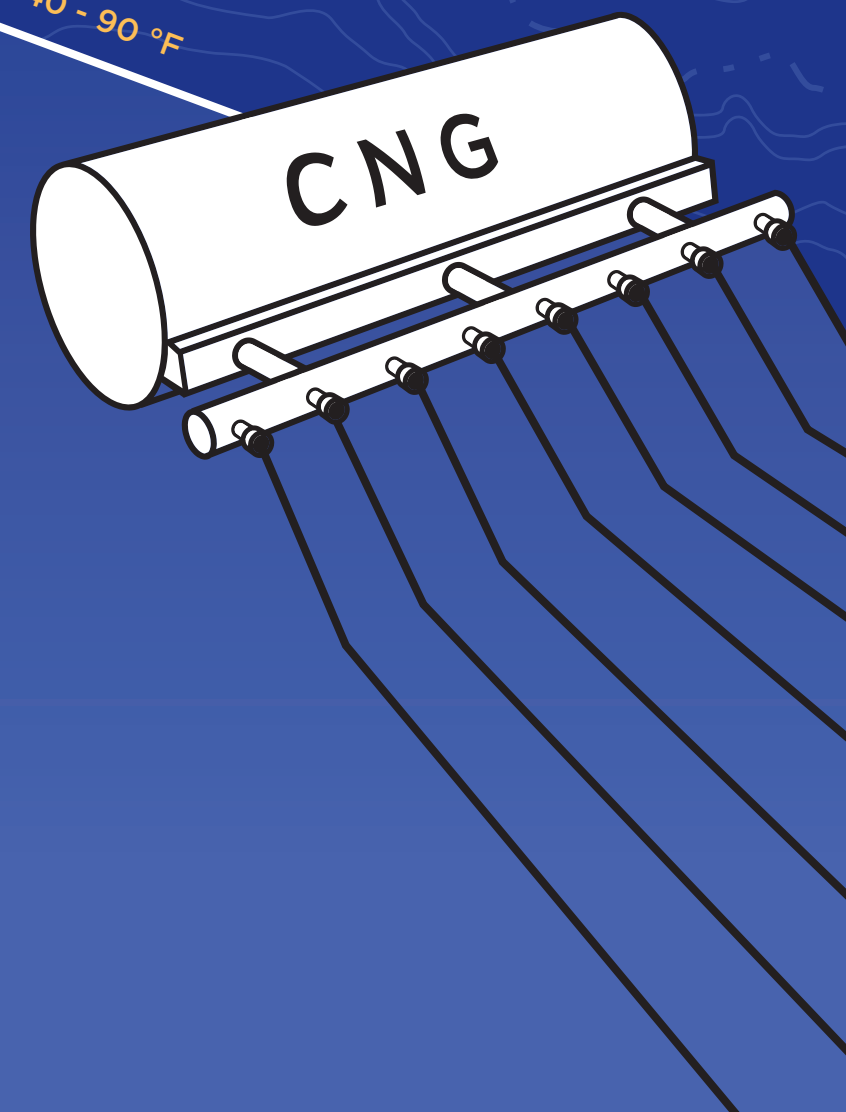
Tri-Plex Method

Optimal control of:

- » PRESSURE
- » DISTANCE
- » RATE



300 - 5,000 SCFM • 50 - 3,000 PSI • 40 - 90 °F



The patented **Quad-Phase LNG Vaporizer** can be rated up to 300,000 SCFH at working pressures up to 3,000 psi. The vaporizer design achieves radial thermal heat transfer between pluralities of individually contained fluids within a radial design. This method allows efficient flameless heat transfer from all available sources to vaporize liquid natural gas.

The **Quad-Phase LNG Vaporizer** can effectively operate in any climate and reduce heat loss to ambient, thus allowing maximum heat transfer to LNG.

EXPERTS

in Mobile Heat Transfer

Over the last two decades, significant investments in research and development centered on creating a competitive advantage for our clients has resulted in several patented and proprietary technologies. Vita has developed versatile **heat transfer technologies** that can be easily adapted into many different products for various liquids and gases.



Direct Fired Equipment

Vita's mobile **Direct Fired** heating systems are engineered to maximize efficiency, capacity and reliability. The Burner and Heat Exchanger technology facilitates unmatched heat transfer efficiency and exceptionally low fuel consumption. Each Direct Fired heater can produce 9 to 22 million BTU per hour, while some of Vita's custom heat exchangers can offer upwards of 90% heat transfer efficiency.



Glycol Heating Equipment

Vita's Glycol Heating systems provide an **Indirect Heating** method that can be utilized to regasify or heat the following liquids or gases for a wide range of oilfield and industrial applications:

- » Liquid Natural Gas (LNG)
- » Natural Gas Liquids (NGL)
- » Carbon Dioxide (CO2)
- » Ethylene & Propylene Gas
- » Oil



Frac Water Heating Equipment

Vita's water heating system is capable of heating large volumes of water quickly in harsh ultra-cold environments. The **Hyper-Heater** system is qualified for remote water heating applications where quick on-demand heating is needed, i.e. heating frac water tanks and ponds, as well as other industrial applications. The "**Hyper-Heater**" system is capable of producing up to **45 million BTU** per hour, and flow rates up to **25 BBL** per min. This mobile heating system is capable of delivering over 90% heat transfer efficiency.



Dual Mode Heating Equipment

Vita's Dual Mode system exemplifies excellence in design and is uniquely capable of transferring heat from two distinct sources. The system includes both a **Direct Fired** and **Heat Recovery** heat exchanger in one mobile unit. The Dual Mode system clearly demonstrates maximum flexibility and exceptional fuel consumption efficiency.



Visit www.vitainternational.com to learn more about Vita's innovations for the upstream and downstream service industry.





Vita International, Inc. is an innovative solution provider at the forefront of product development for service equipment in the energy industry.

Headquartered in Houston, TX, Vita has placed “**excellence in engineering**” as a top priority since establishment in 1988. In developing the next generation of oilfield and industrial service equipment, significant investments in research and development have resulted in numerous patented and proprietary technologies. These innovations are now effective solutions for the upstream and downstream service industry.



The scope of our effort is in creating unsurpassed value, efficiency and quality in the areas of heat transfer, cryogenics, and power generation.

At Vita International, our most valuable asset is our team of talented individuals who continuously strive to help our clients reach their goals. We have created a company culture that fosters opportunities and provides the support to create innovative products and solutions.

For more information visit
www.vitainternational.com

Vita International operates equipment and maintains strong relationships around the globe.

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