



Global Products to Reach the Industry's Top Innovators

Nitrogen & Oxygen

Learn more about the applications of the new technology that produces these gases in today's world.

Hydrogen

Learn how Hydrogen can be used as an alternative fuel in many applications.

Innovation

Supplying engineering knowledge to the industry.



Verde LLC has continuously innovated, improved and promoted its cutting-edge technology around the world.



“VERDE LLC
RECEIVED THE
BEST OF
BOSTON
AWARD FOR
RENEWABLE
ENERGY”



The leading magazine in the biomass field, Gas World, published an article about the Hydrogen Reformation technology of Verde LLC. This is another recognition of Verde’s cutting edge technical innovation and its quickly expanding fame in the industry:

“Here and now, gasification plants have the functionality to make the hydrogen economy a real possibility. “

Verde’s Publications:



VERDE LLC also presented their newest solutions in Hydrogen Fueling Station technology to the market.

Nitrogen, Oxygen & Hydrogen



A. Nitrogen & Oxygen Generating Plant by Pressure Swing Adsorption



B. Nitrogen Generating Plant by Membrane Separation



C. Liquid Nitrogen, Oxygen, & Argon Plant by Cryogenic Technology

Nitrogen

NITROGEN GAS AND LIQUID ARE COLORLESS, ODORLESS, AND GENERALLY INERT. ITS COMPOUNDS ARE VITAL COMPONENTS OF FOODS, FERTILIZERS, AND CHEMICALS.

A. Nitrogen & Oxygen Generating Plant by Pressure Swing Adsorption

Due to the different adsorption of oxygen and nitrogen onto the carbon molecular sieve surface as well as different diffusion rates through the open or closed program control valve, separation of the two gases is achieved, and nitrogen of required purity is produced.

B. Nitrogen Generating Plant by Membrane Separation

In this setup, compressed air is pumped through a compressor filter, along with polymer membrane filters. After being compacted and purified (to remove oil, water, and dust), the air will be passed through the membrane in order to separate the gases.

C. Liquid Nitrogen, Oxygen, & Argon Plant by Cryogenic Technology

The Cryogenic Engine features a Fully Automatic G-M cold head with integral controls. It also includes high efficiency frequency drive with water cooling or optional air-cooling.

Hydrogen

HYDROGEN HAS BEEN A HOT TOPIC FOR A WHILE. PEOPLE GENERALLY KNOW THAT IT IS THE LIGHTEST ELEMENT ON EARTH, AND CAN BE BURNED FOR FUEL WITHOUT ANY HARMFUL EMISSIONS. ALL OF THIS IS CORRECT, HOWEVER, THE PROBLEM WE SEEM TO FACE WITH HYDROGEN IS HOW TO MAKE IT.

A. Hydrogen Generator by Water Electrolysis

The hydrogen electrolyte and oxygen electrolyte circulate separately. Both electrolytes pump into their respective, separate cells directly, allowing for the collection of higher purity hydrogen and oxygen.

B. Hydrogen Generating Plant by Methanol

This equipment is low cost, user-friendly and very easy to maintain. The Methanol is converted to CO and H₂ with the action of the catalyst.

C. Hydrogen Generating Plant by Ammonia Decomposition

The system vaporizes liquid ammonia, and heats it with a catalyst until decomposition occurs, creating a mixture of gas consisting of 75% hydrogen and 25% nitrogen.

D. Hydrogen Generating Plant by Pressure Swing Adsorption with H₂ Purifying

The H₂ Purifying System removes oxygen from hydrogen via a catalyst to obtain high purity H₂ after adsorption and drying through the dust filter.

E. Hydrogen Generating plant by Natural Gas Steam Reforming

This H₂ generation plant adopts natural gas as feedstock through the process of steam reforming and PSA purification.



A. Portable Hydrogen Generator by Water electrolysis



AA. Hydrogen Generating Plant by Water electrolysis



B. Hydrogen Generating Plant by Methanol



C. Hydrogen Generating Plant by Ammonia Decomposition



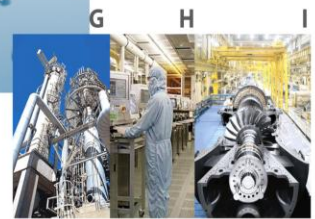
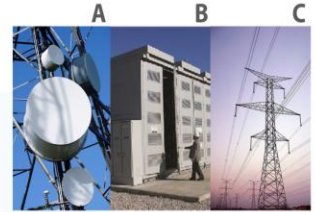
D. Hydrogen Generating Plant by Pressure Swing Adsorption with H₂ Purifying



E. Hydrogen Generating Plant by Natural Gas Steam Reforming

VERDE ELECTROLYSER

from wild
renewable energy....



- A. Telecom Tower Backup
- B. Renewable Energy Storage
- C. Grid Stabilization
- D. Materials Handling Fuel
- E. Fleet Vehicle Fuel
- F. Bus Fuel
- G. Chemical and Fertilizer
- H. Semiconductor processing
- I. Power Plant cooling

... into manageable
energy solutions



Product Variety

Whether it's a small household renewable project or a large industrial project, Verde LLC will ensure you get the right product based on your needs and budget.

Service

Verde LLC has the highest level of service and maintenance; we make sure your product lasts and performs to 100% of its capabilities.

Design

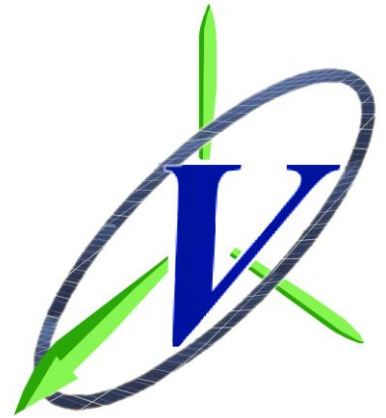
Verde LLC provides many options for the customer to choose from; we can supply the turbines, panels and generators separately, or offer a complete package where we supply, install and calibrate the plant.



The Verde Team

*We have identified a
unique opportunity to bring
our detailed engineering
knowledge to the industry.*

VERDE LLC



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