

HYDROGEN MINER[®] R.E.S.

by EMARENA



“Shore UP, Energy”

Hydrogen Miner[®] R.E.S.

Energy derived from renewable energy systems (R.E.S.) is at the apex of technological advance. Such energy derived from wave energy, hydroelectric and other sources may be used to generate a gas reserve.

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MMXXIV

Hydrogen Miner Offering :

Hydrogen Miner machines are most useful during periods of energy overage and for grid balancing. Hydrogen Miner may be used as a single unit or many Hydrogen Miners may be used as a very large array. Expand your R.E.S today to include gas production in hard to reach locations or simply where Hydrogen and Oxygen are needed.

Resistance Adjustments and Chemical Resistivity:

Resistance parameters of each cell may be adjusted to optimize performance. Each Hydrogen Miner allows for variable power inputs from 5 to 50 volts. The machine has been optimized for use with Sodium Hydroxide in an aqueous solution at 5% for 1Volt/Amp. Expansion of the electrical performance may be achieved by way of varying the chemical resistivity. During periods of testing the machines may be filled with Sodium Hydroxide below saturation states.

Set Up and Performance:

Modest mid range production of gas has been achieved at half a liter per minute of Hydrogen and quarter liter of Oxygen per cell. Increased performance is achieved with setup with increased voltage and sodium hydroxide. Solute concentration and electrode submersion depth offer two methods of varying the resistance of each machine. Each cell has a bottom feed mechanism for single cell fill, whereby an array of cells may be filled with the same solution. Calibration of the cells starts with submersion of the electrode within cell chambers. Once the submersion depth of the electrode is set, the concentration of solute may be varied to effect resistance. Once electrodes have been consumed they may be replaced.

Requirements and Standard Setup [not included]:

- Gas filtration for Sodium Hydroxide and particulate separation.
- Gas compression, bellows or tent systems for Hydrogen, Oxygen or both.
- Protective containment for single or multiple machines.
- An isolated electrical box.
- Variable voltage supply of 5-50 Volts, 1A/V.
- Food grade, 5% Sodium Hydroxide solution.
- Distilled water for optimal starting performance.
- Filtration systems for oxidized electrode particulate. * Some oxidation improves electrolysis.
- *As per industrial code: Electrician and industrial gas or plumbing specialist may be required.*



HYDROGEN MINER
SINGLE CELL

Fee Schedule ::

- 15,500\$USD :: Hydrogen Miner Cell Purchase (pre-order only)
- 2,000\$USD :: Hydrogen Miner [Unbranded] Monthly Rental, 12 month minimum.
- 500\$USD/Hr :: Hydrogen Miner Setup cost per hour.
- At Cost\$:: Incidentals.
- At Cost\$:: Transport.
- At Cost\$:: Compact Shipping container for machine installation.

Scientific Research Options ::

500\$ per hour.