

## Gen 25 Hydrogen fuel system

The Gen 25 Hydrogen fuel system is the latest development in hydrogen fuel systems that uses extra large electrode area of 15,000 sq cm and has specially designed anode to

1. Prevent energy loss as Heat
2. Increase gas production by larger electrode area
3. Increases gas Production using patented metal alloy as the anode
4. Chemically inert stainless steel 316L cathode has high conductivity and excellent thermal dissipation characteristics.
5. The Same excellent and proven design layout as the successful Gen 20 systems
6. Both the Gen 20 and the Gen 25 systems look the same except the Gen 25 system is MUCH MUCH LARGER 28 KG WEIGHT for Gen 25 VS 16 KG FOR Gen 20 .... Gen 25 electrodes area = 2.5 times area of Gen 20 electrodes.
7. Much Higher gas volume generating characteristics per square cm of plate area than the Gen 15 or Gen 20 systems
8. Excellent cell porting to speedup the gas extraction and preventing back flow of bubbles causing a vapour lock in system.
9. High pressure , high flow rate magnetic induction pump that is sealed preventing caustic liquids entering the pump electronics. Caustic solutions in pump electronics will make a pump seize.
10. System is secured onto a metal framework along with the pump and electrolyte tank before being secured / lowered into a Robust Dewalt 2 toughbox.

Previously Trucking companies such as Coogee Chemicals using 16 litre diesel Powered trucks have used two Gen 20 systems to power their hydrogen fuel systems. This required 2 sets of power supplies and two pumping systems to be setup and made to operate in tandem drawing 35 to 40 amp each in order to generate the correct volume of Hydrogen gas. These trucks are driven 24/7 and the hydrogen systems needed be monitored to ensure the liquid supply is constant concentration and the correct volume.

The Gen 25 system electrode area is over 250% the volume as a Gen 20 system and requires only one tank , one pump and one system for the 16 L truck. It has improved heat dissipation properties – much better than the Gen 20 and has a

1. 12 FET PWM 5 KW power supply, rather than the 6 FET PWM 1.5 kW power supply
2. High pressure high flow rate Magnetic induction pump
3. Easily serviced 6 cell, 33 plate electrode assembly. ( why 6 cells is a common question , why not more cells ? Because of the redox voltage of hydrogen system is at least 2.03 volts , having more than 6 cells for a 12 volt system means the voltage available to generate hydrogen will be too low and all you generate will be steam.

A 101c plate system with neutral plate arrangement have 100 cells . The voltage available per cell on a 12 volt battery is only 0.12 volts --- that cant make Hydrogen but is very good in boiling water.

Currently these system have been tested in commercial operations for over 6 months generating GAS VOLUMES of 7.2 Litres per minute. These systems run well for extended periods on low

concentrations on potassium hydroxide solution. For More information call Gavan on 0403177183

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