

ABSTRACT

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Indonesia is a country with a fairly high energy consumption in the world. Based on data from the Directorate General of Renewable Energy and Energy Conservation of the Ministry of Energy and Mineral Resources, in recent years Indonesia's energy consumption growth reached 7% per year. The figure is above the growth in world energy consumption is 2, 6% per year. Indonesia's energy consumption is divided for the industrial sector 50%, transport 34%, households 12%, and 4% commercial (EMR, 2012).

Elektrolyzer an appliance that can produce HHO gas (Hydrogen Hydrogen Oxygen). HHO gas from elektrolyzer is mixed with fuel in the carburetor. This method is very environmentally friendly, inexpensive, and can provide benefits to the vehicle.

It is necessary to study the effect of the use of elektrolyzer the reaction process that occurs in the HHO generator of both types. This study was conducted to analyze the comparative type of HHO generator with wet-type cell and dry cell that would be useful and beneficial to mix the fuel consumption of motor vehicles.

This experiment is testing the concentration of the hydrogen gas generator with the type of wet cell and dry cell to characterize the hydrogen gas generator is (see the parameters of temperature, strong current, and voltage) and the measurements made is the measurement of gas flow generated by the two types of the generator. Testing and measurement is done with two types of HHO gas generator, the type of wet cell and dry cell.

Based on the results of characterization, the character of wet cell and dry cell tend to exhibit the same behavior as the addition of catalysts will increase the number of electric current flowing into the cell and increase the amount of gas produced and to increase the temperature inside the plate. Increased electrical current to the wet cell is greater when compared to dry cell, which is the maximum electric current generated 24.4 wet cell A. While the maximum current dry cell generated electricity of 21.2 A. The gas flow generated in the wet cell is greater than with dry cell, which is the maximum flow cell wet gas produced 0.29 NL / min. While maximal flow cell dry gas produced 0.25 NL / min. This occurs because the current flowing in the wet cell is greater than the dry cell.

Keywords: *Characteristics, HHO Generator, type Wet Type Dry Cell and Cell.*