

Performance Report

1. Client - Spectra Industries Lanka (Pvt) Ltd.
2. Address - Maspotha, Kurunegala
3. Contact Details - 0718578323 / 0777582731
4. Background

Spectra Industries, Maspotha Kurunegala has developed a biomass fired hot water generator at no pressure for small scale applications such as restaurants, hospitals etc. A boiler performance test has been carried out on 16th June 2018 on request of Spectra Industries and the results are given bellow.

5. Results

5.1. Types of biomass used

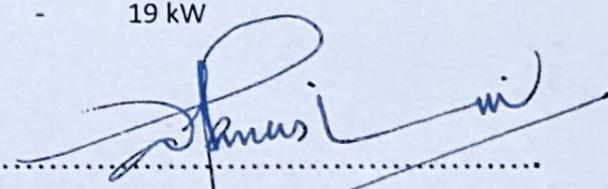
Mixed Firewood	
Moisture content	- 25%
Size	
Diameter	- 3 to 4 inch
Length	- 4 to 6 inch

5.2. Test Results

Amount of water heated	- 56 Liters
Biomass use for heating the above amount	- 1.9 kg
Initial temperature of the water	- 26 °C
Final temperature of the heated water	- 100 °C
Heating time	- 15 Minutes

5.3. Performance Evaluation

Energy content in the firewood	- 26.4 MJ
Energy use for water heating	- 17.4 MJ
Thermal efficiency of the water heater	- 66%
Power of the water heater	- 19 kW



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