

Small Scale Stationary and Mobile Production of Biodiesel

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Abstract : Biodiesel can be produced in small scale mobile units which are designed with local input and demand. Unlike the typical biodiesel production plants, mobile biodiesel unit consists of a biodiesel production facility placed inside a standard cargo container and mounted on a truck so that it can be transported to a region near the location of raw materials. In this paper, we review the existing concept and unit for the development of community-scale and mobile production of biodiesel. This includes the main reactor technology to produce biodiesel as well as the pre-treatment prior to the reaction unit. The pre-treatment includes the oil-exPELLER unit to obtain oil from the oilseeds as well as the quality control of the oil before it enters the reaction unit. This paper also discusses the post-treatment after the production of biodiesel. It includes the refining and purification of biodiesel to meet the product specification set by the biodiesel industry.

Keywords : biodiesel, community scale, mobile biodiesel unit, reactor technology

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