

Abstract

In this deliverable, the technical characteristics of the optimized household waste dryer are presented. The waste dryer was designed with the use of the same 3D CAD software which was used for the design of the prototype. Before the design of the optimized design, several experiments were conducted for a period of 4 months in order to obtain the necessary data needed for the design process of the dryer. During these experiments, the substrate characteristics were determined while an extensive laboratory analysis of the operation of the component parts of the dryer was conducted.

The optimised household drying consists of the same parts as the prototype waste dryer: i) a Ceramic thermo reactor (horizontal or vertical). ii) a resistance that has been placed in order to achieve the desirable temperature level for the waste moisture removal iii) a substrate entrance portal for the dryer's feeding (filling), iv) an active carbon; the air emissions produced during the drying process will be collected by the filter, in order to avoid unpleasant odours, v) a basket at the inner part of the waste dryer for the drying of waste. The optimized waste dryer is shown in the following picture:



Picture.1: Optimized Household Organic Waste Dryer