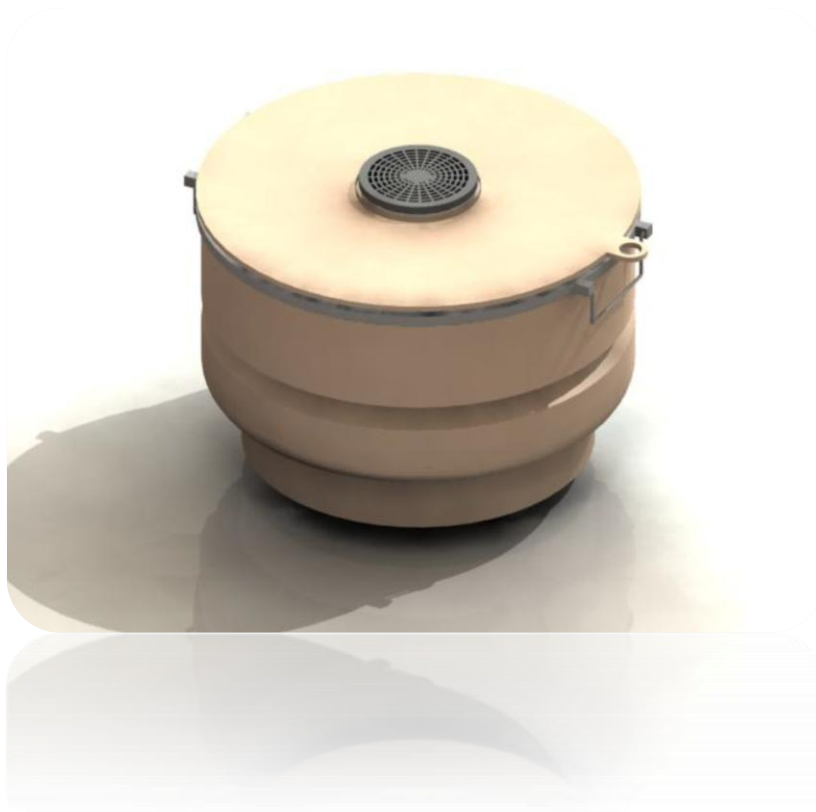


Abstract

In this deliverable, the technical characteristics of the prototype household waste dryer are presented. The waste dryer was designed with the use of a 3D CAD software in a period of approximately three months. Before the design process several experiments were conducted in order to obtain the necessary data needed for the design process of the dryer. The waste dryer is comprised of a ceramic body and a mechanism for the drying of organics at the inner part of it. More specifically:

The prototype household drying system is a lab scale in-vessel reactor, consisting of the following parts: 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 waste dryer is shown in the following picture:



Picture.1: Household Organic Waste Dryer