

PLASTIC KILLER

LIFE12 ENV/IT/000374

Co-funded by
the European Community

Installation of the units and construction of the prototype pilot plant

All the components indicated in the pilot plant have been constructed: Belt Conveyor, Plastic Killer, Metal Killer, Vibrating Feeder, Belt Board Conveyor, Filtering Valve, Air Recycling Cleaner, Dynascreen, Induction Grading Machine.

Università di Padova collaborated to the installation and the set-up of the prototype, working mainly on the illumination system, and on the optical and spectroscopic system.

The pilot plant went through a preliminary cycle of set-up tests in order to verify its functioning according to the specifications of its final executive design; all the single units were tested before and after interconnections.

PAL performed several tests on the camera control system, focusing on the detection, identification and selection processes at various speeds of the conveyor belt, for different volumes of material.

The pilot plant was tested with one camera first (test with virgin wood with the addition of different content of plastics, and test with recycled wood with the real content of laminated wood), and then with both cameras (upper and lower) to verify the synchronism between them and the performance of the industrial PC in the computation.

Other kind of tests were done: tests with small lamps to reduce size and power absorption, and tests with reduced ROI (region of interest of spectrum) to increase the camera frame rate.

The tests demonstrated that the pilot system is able to remove up to 95% of plastic impurities from the recycled wood, so the targets of the project can be achieved.

In May 2016 the Plastic Killer was presented at Xylexpo Fair in Milan.

For more details visit our website:
www.plastickiller.eu



Contacts:

Project Manager
R&D Manager

Giuseppe Pinese
Michele Libralato

Phone
Fax
E-mail
Website

+39 0422 852300
+39 0422 853444
info@pal.it
www.plastickiller.eu