

FILM PE-PP & BIG BAGS RECYCLING SOLUTION

*The Tecnofer **washing solution** for the recovery and valorisation of FILM waste*

TECNOFER

WASTE RECOVERY PLANTS DAL 1976

Since **1976** Tecnofer has been producing recycling systems for plastic materials and it has been offering **innovative technologies** for the recovery and the enhancement of waste coming from industrial processes in different fields.

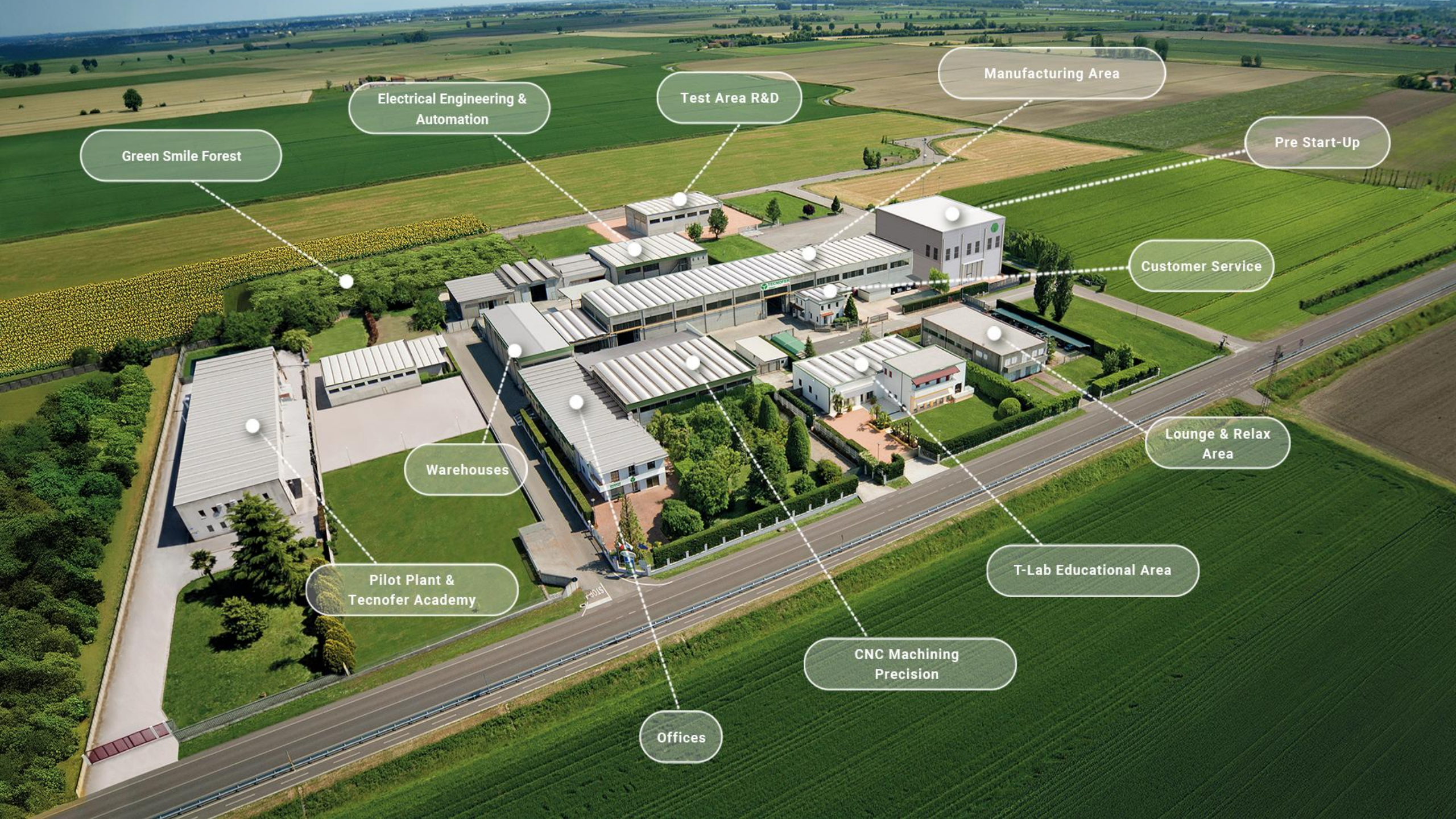
Each new Tecnofer project is based on the «**reliability and efficiency without compromise**» principle, applied scrupulously from the design of the machine/plant to its realization.

Tecnofer team is aware that the high quality of machinery and systems, the production optimization and stability over time and the quality of the processed product are the key for the strategic success of both our Customers and Tecnofer.



More than **1.200** plants
installed in more than **60**
Countries all over the world.





Green Smile Forest

Electrical Engineering & Automation

Test Area R&D

Manufacturing Area

Pre Start-Up

Customer Service

Warehouses

Lounge & Relax Area

Pilot Plant & Tecnofer Academy

T-Lab Educational Area

CNC Machining Precision

Offices

TECNOFER TECHNOLOGY FOR FILM RECYCLING

TAILOR MADE SYSTEM

Tecnofer system, thanks to its versatility and flexibility features, can have **different configurations** to meet customer's installation requirements.

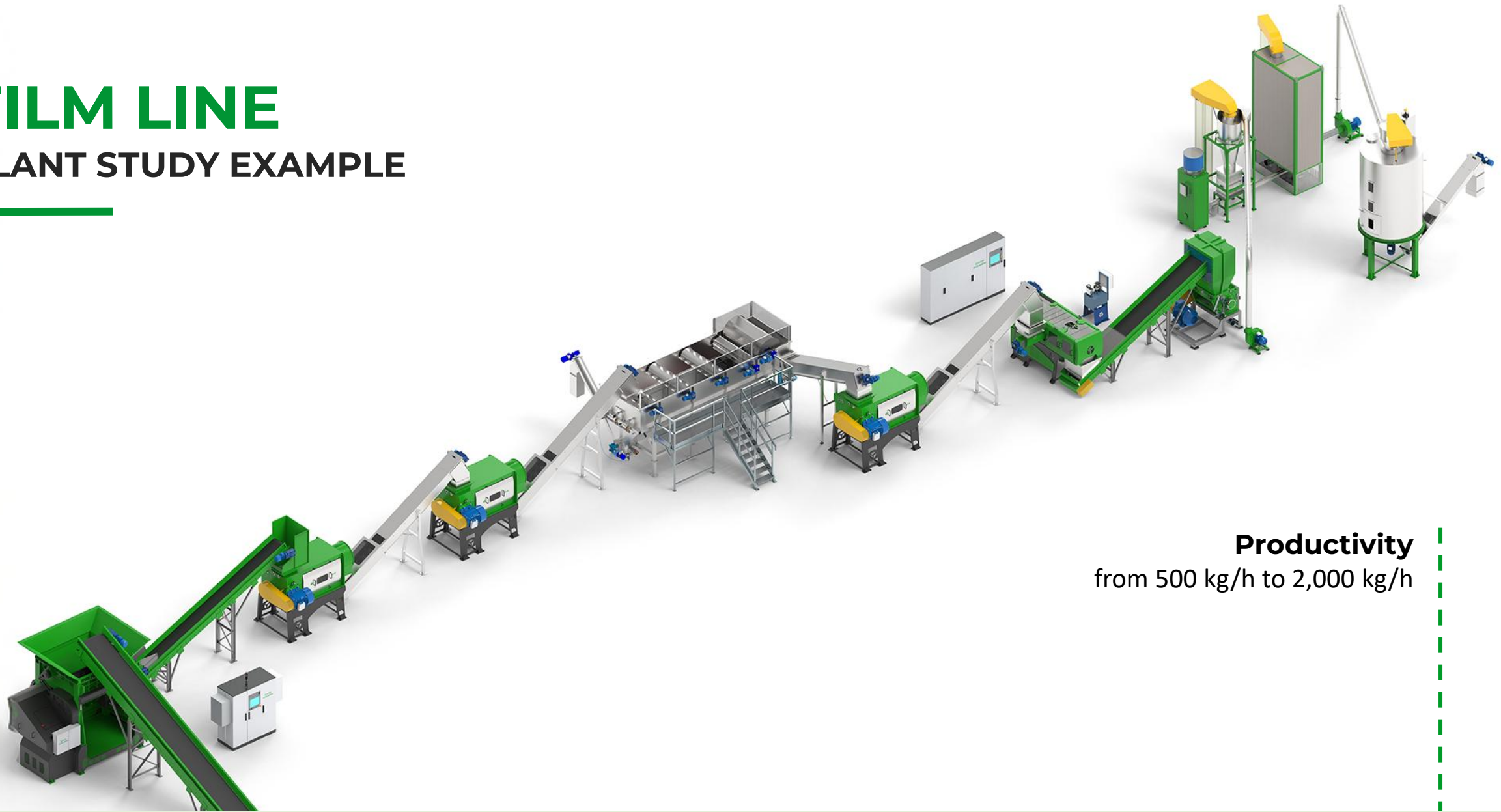
Our projects are characterized by extreme attention to details and they are developed **together with the customer**. He is part of the project indeed, and he is consulted and updated constantly on design, development, and construction process of his plant.



THE RECYCLING PROCESS

FILM LINE

PLANT STUDY EXAMPLE



Productivity
from 500 kg/h to 2,000 kg/h

SOME OF THE MACHINES



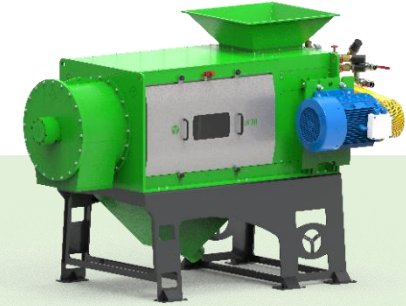
SHREDDER

The single shaft shredder is a versatile machine suitable for a **primary grinding of waste materials** with high contamination. Thanks to its structure, it is a very reliable machine and its maintenance can be done at very long intervals. The machine works with a combined action cut-tear of the product.



GRINDER

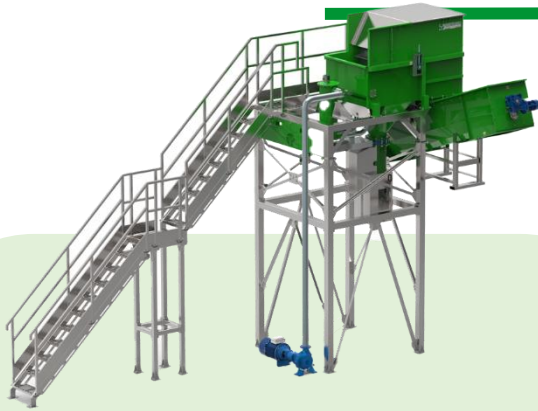
This machine is usually placed in the front area of the plant, and it is used to **grind and reduce the size of the incoming material**, with or without water.



FRICTION WASHER

This machine **washes highly contaminated plastic flakes** which come from a primary shredder or from a grinder. The centrifugal effect of the machine is based on **mechanical friction** combined with the use of a big quantity of water in order to guarantee a very good cleaning effect of the product.

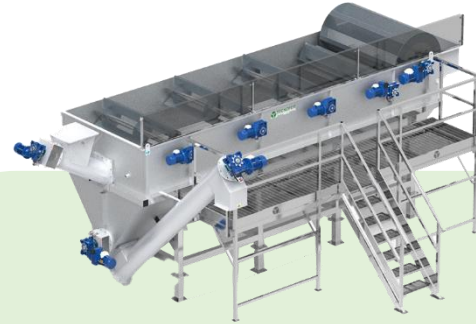
SOME OF THE MACHINES



PRE-WASHING TANK

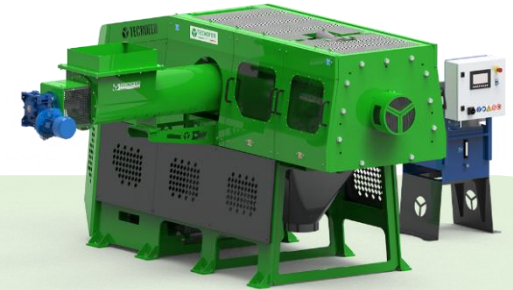
The function of the **pre-washing tank** is to separate plastic materials from heavy contaminants, by settling stones and heavy material that could damage the following machines of the washing process.

Thanks to its special structure, the waste settling separator allows, by water and air injections, the **floating of the plastic parts** contaminated by soil and other heavy contaminants.



WASHING TANK

The washing tank has the function to **separate by density** the polyolefin plastic flakes from the heavy sinking plastic flakes. The plastic washing tank is **customized** in function of the treated material and it is equipped with a double discharge system, working continuously, for both floating and sinking material. Parts in direct contact with the material are in stainless steel aisi 304 made.



FRICITION WASHER

The **waste squeezer** is installed at the end of the **film washing lines** for **drying the material**. The dewatering system is based on the **mechanical squeezing**, made by a screw working inside holed cylinders. The discharging final part of the squeezer is fit with hydraulic locks that slow down the feeding of the product. In this way the flakes coming out from the film squeezer become **compacted**, partially melted and consequently the water is removed.

AUTOMATION

THE HEART OF THE PLANT

Each and every phase of the whole process is **automatically managed** to obtain the highest productivity with the **lowest energy consumption**.

The potentiality of this system is to get analytic information on all working steps, useful for **production statistics, traceability** and **optimization of production management**.



AUTOMATION: THE HEART OF THE PLANT



- User-friendly interface;
- Possibility of remote real time control;
- Maximum efficiency;
- Easy access and use of data at each level;
- Easy monitoring of maintenance schedule;
- Higher safety standard;
- Process flexibility;
- Possibility of integration with customer management information system.

TEST AND ANALYSIS LAB



TEST AREA

Tecnofer has a test area where **working tests** take place processing samples and customer's materials.



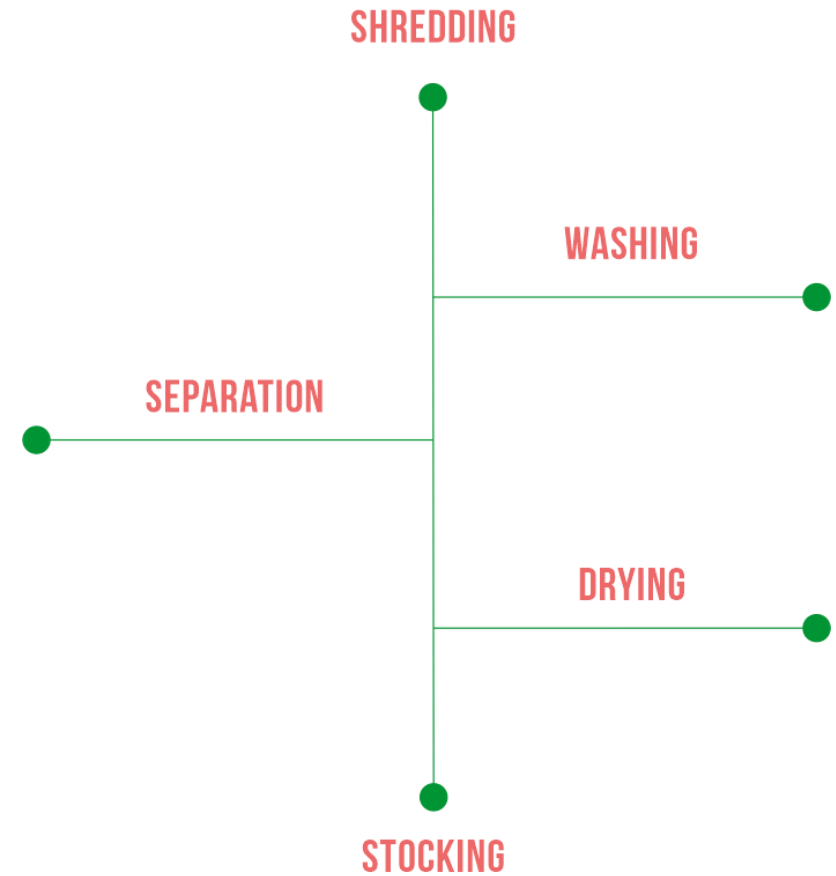
LABORATORY

Tecnofer has a laboratory equipped with the latest tools for the general analysis of the waste material. The aim is to **test** and **maximize** the quality of the processed product thanks to **Tecnofer efficient technology**.

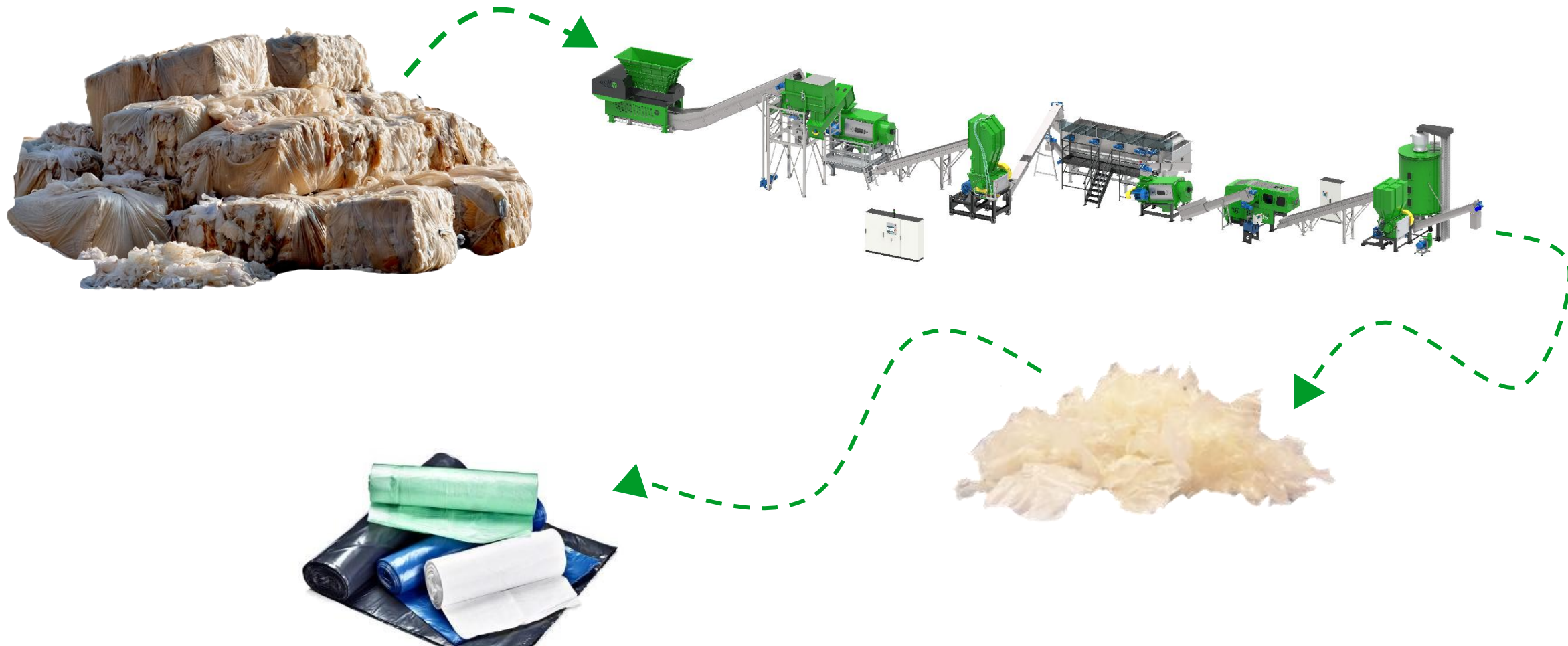
TECNOFER TECHNOLOGY IN ACTION

FILM WASTE

Complete washing lines for
LDPE | LLDPE | HDPE -PP FILM



FROM WASTE TO NEW LIFE



THE BENEFITS OF TECNOFER TECHNOLOGY

- **Recovery of secondary raw material,** in order to reach **high quality end granules.**
- **Energy and water saving.**
- **Efficiency, flexibility and high customization** of the system.
- **High quality materials** that allow **over time durability.**
- **Process flow integrated** in the existing production systems (DCS, PLC and others)

ADDED VALUE: CUSTOMER CARE

The service offered by Tecnofer is designed to maintain maximum performance and efficiency over time and to provide a responsive **support structure** for any anomalies that may occur, with the goal of ensuring **optimal performance** and **long-term production stability**, which are strategic success factors for our clients.



SCAN

*More info
on **Tecnofer Assistance***



TECNOFER FILM PLANT IN ACTION

CASE HISTORY

Project installed in the United States



*Watch the video about the
Start Up of this project*





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